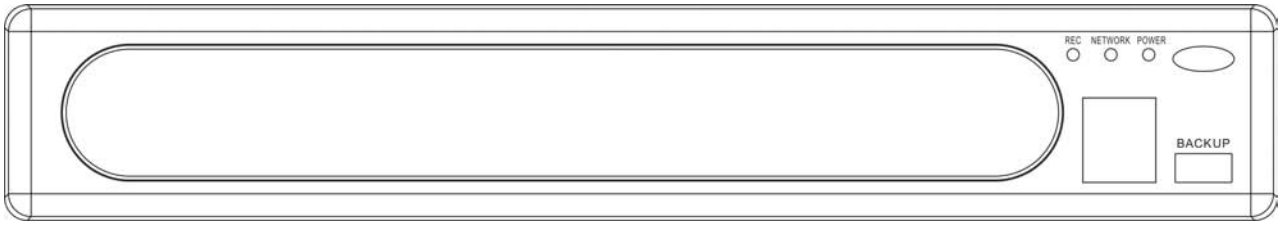
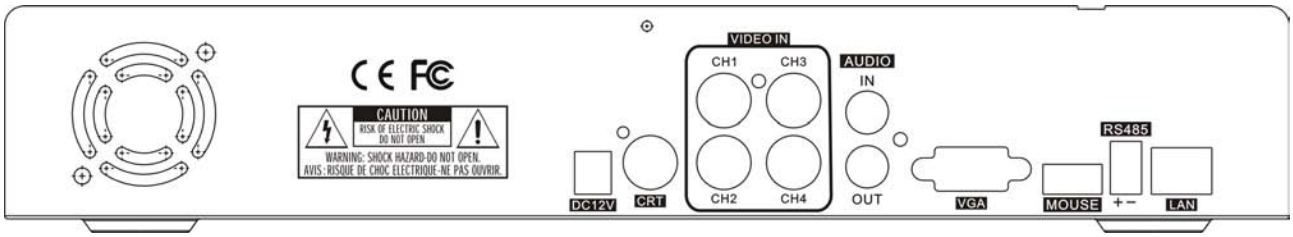
Hardware Overview

A. Front Panel

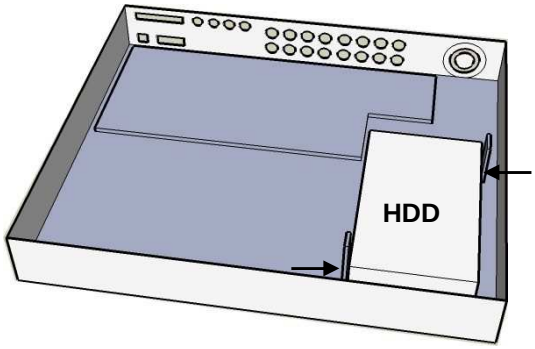


B. Rear Panel

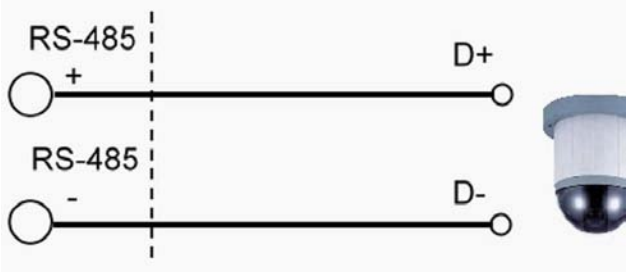


C. HDD Installation

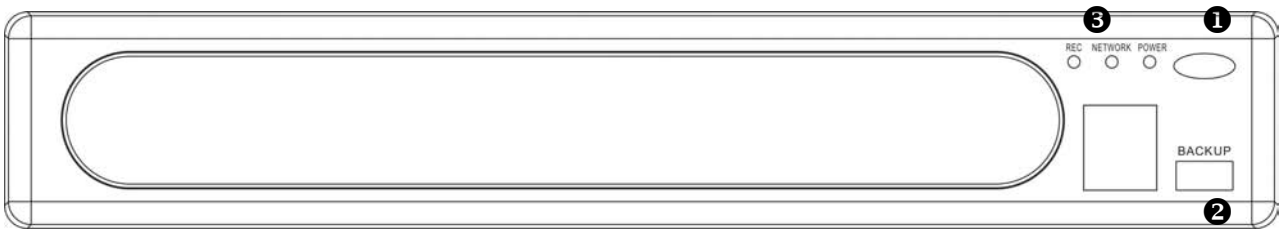
Remove top cover of the DVR and install HDD



D. PTZ connection



Front Panel



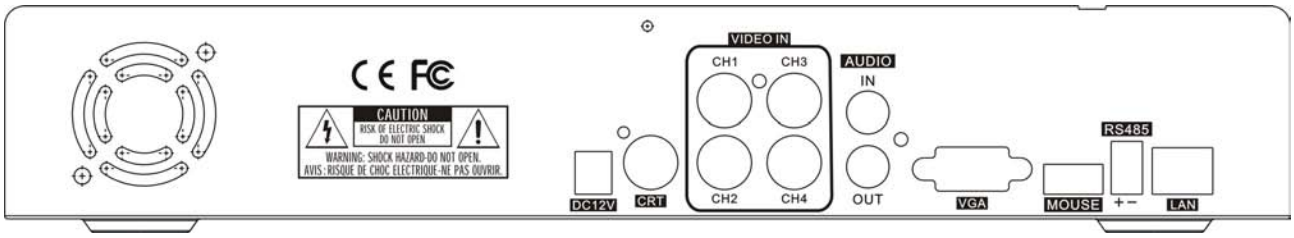
1. IR Sensor: IR receiver for remote controller
2. USB Connectors: USB port connection for USB pen drive.
3. Status Indicator:

   RED: Indicates power on status

   GREEN: Indicates network connection status

   YELLOW: Indicates recording status

Rear Panel



Label	Operation
VIDEO IN	4 connectors for composite video input. Connect camera output to Video-in (NTSC/PAL)
CRT	Connector for composite video output to Video Monitor, TV, etc.
VGA	Connector for VGA monitor
AUDIO	1 Audio Input and 1 Audio Output
MOUSE	Connection for USB mouse
RS-485	Connect to PTZ camera,+→PTZ D+ / - →PTZ D-
LAN	RJ45 connector for LAN connection.
DC 12V	Use 12V DC supplied adapter ONLY.

Remote Controller

Live view function control	
REC	To activate Emergency Recording
LOCK	Lock mouse and remote controller operation
4S / 9S	4 split / 9 split display
ZOOM	To enlarge the display. The selected area can be moved by the direction buttons
PIP	Picture in Picture. Press again to switch in between PIP mode and full screen mode
STATUS	DVR Status display
0~9 number	Live display channel selection / password entering
MENU/II	Enter setup menu
ESC	Back to menu
ENTER/MODE & Direction keys	Select or adjust options in setup menu. Navigate the selected item in setup menu
PLAY	Instant Replay
T-SRH	Open the playback search window
BK/UP	Enter Backup Mode
PTZ	Enter the PTZ camera (speed dome) control mode
IRIS+ / IRIS-	Adjust IRIS Function
ZOOM+/ZOOM-	Adjust ZOOM Function
FOCUS+/FOCUS-	Adjust FOCUS Function

System Overview

3-1. General Usage Information

The STANDARD series DVR can be operated with a mouse or remote controller under the four main modes listed below:

Live Mode – Allow user to view all live operating cameras and access to Pan/Tilt camera controls. In addition, system status information will be shown during live mode.

Setup Mode – Allow user to customize settings for Live viewing, Recording, Backup, and Camera related devices under the Setup Mode.

Backup Mode – Allow user to archive desired data to a preferred supported media, such as USB Backup, Remote Client Software, etc.

Search Mode – Allow user to review all recorded footage by using a calendar or event based search.

Password Protection

The DVR unit uses User ID and Password system to prevent unauthorized operation. (Default settings are blank for these fields).

IDs and Passwords should be managed by a system administrator ONLY. Different users may be assigned with different levels authorities to the DVR.

3-2 Live Mode

You can monitor all the channels, listen to audio signal and have some related operations under *LIVE* mode. This paragraph describes the IR remote control, mouse operation and on screen graphical icons under LIVE mode.

Table 3-2.1 Graphical icons that will display after right-clicking your mouse under Live mode.

Icon	Description
	Resting the cursor on this icon will bring up the following four menu icons.
	Main Menu
	Search Setup
	Backup Menu
	PTZ Control
	Turn on/off recording
	Playback
	Resting the cursor on this icon will bring up the following five display icons.
	Pause
	ZOOM, double the screen size
	Auto Sequence
	LOCK, activate the key lock.
	Full screen display.
	Quad display.

Table 3-2.2 Description of on screen graphical icons in Live mode

Icon	Description
	Recording is on
	Schedule Recording is on
	Live Audio is on
	Live Audio is off
	Motion detected on the channel
	Video loss detected on the channel
	USB device detected
	Connected to the LAN cable.
	AUTO-seq is on
	Freeze is on, screen is frozen
	LOCK is on
	PTZ control is on
	Indicate the current used hard disk space (99% mean used 99%, remain 1%)
	Lower right of each CH will show the current time

Table 3-2.3 Description of on screen graphical icons in Remote Software mode

Icon	Description
	Image quality (High/Low)
	Full screen
	Record
	Record and snap shot file saving path setup
	Enable / Disable Shortcut Toolbar

PTZ Mode

Switch to the PTZ mode by pressing “PTZ” button under the LIVE mode. The PTZ icon will appear on upper left side of screen and the control panel will appear on the down right side of screen.

Icon	Description
	Exit PTZ Mode and return to LIVE mode
	Pre-set number N. (0~255)
	Go to pre-set number N.
	Set current PTZ location at pre-set number N.
	「TOUR」， Press to activate pre-set tour. ＊
	Set current PTZ location as the start of line-scan. ＊
	Activate line-scan. ＊
	Set current PTZ location as the end of line-scan. ＊
	To move PTZ in 360°
	PTZ zoom in; PTZ zoom out
	PTZ focus in; PTZ focus out.
	PTZ IRIS open, PTZ IRIS close.
Below functions need support from specific PTZ manufacturer. Please check user manual of your PTZ for more details.	
	AUX 1~8,「AUTO」Key ＋ Number key「1~8」
	「Backup」, Customized function。

＊ PTZ protocol may varied from different brands and may not be 100% compatible . Therefore, some of these functions may be unavailable.

3-3 Setup Mode

To enter the main menu and set up DVR, log-in account and user password are required.

The default password of the Administrator account is “**123456**”. Please check the “Account Setup” for related setup of other log-in users.

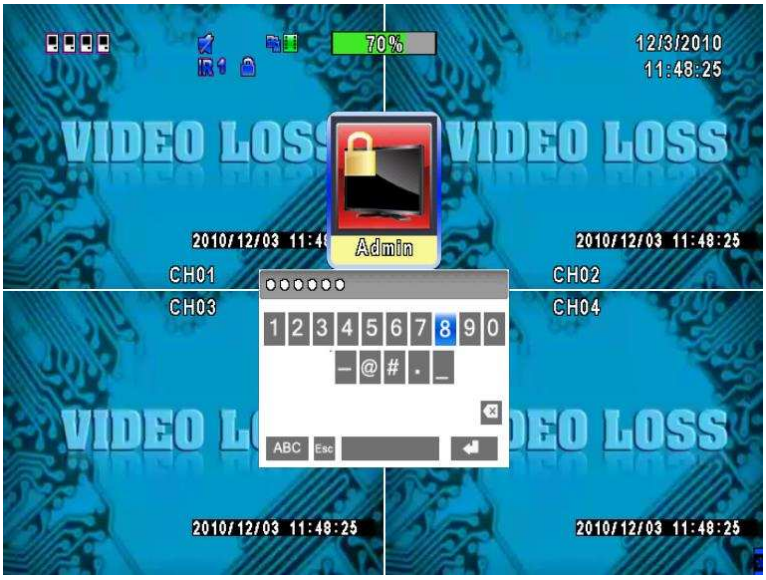


Table 3-3-1 Definition of **Virtual Keyboard**.

Item	Description
	Switch between upper and lower case.
	Switch between numbers and letters.
	Press to cancel the setup.
	Delete the last character.
	Enter to confirm the password.
	Space bar

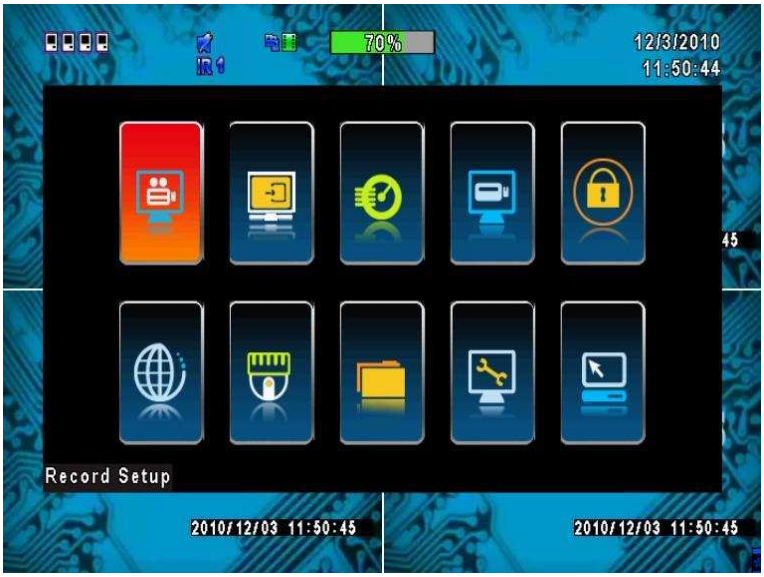


Table 3-3-2 Operation of **Remote Control** under the setting menu

Item	Description
◄ ►	Switch to different options under one item
▲ ▼	Switch to different items
MENU	Save setup and back to LIVE mode
ESC	Return to previous level of menu without saving
ENTER	Enter the menu, or display virtual keyboard

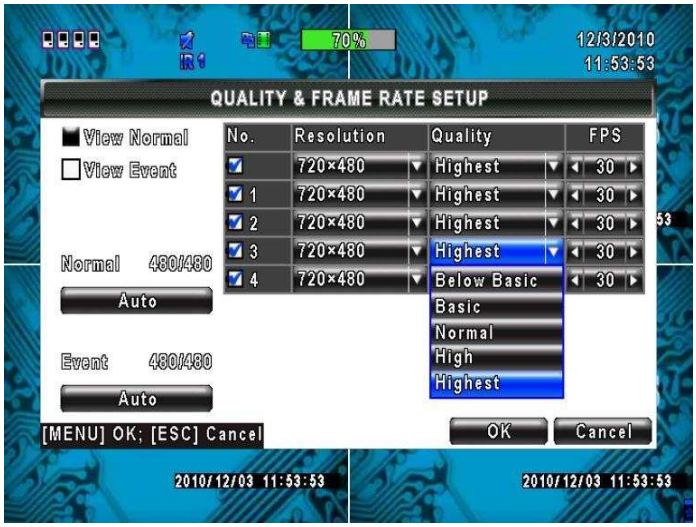
※ The initialization of new installed HDD is required before recording.

Please refer to "3-3-9 Utilities Setup" for details.

3-3-1 Record Setup

Item	Description
HDD FULL	Select STOP to stop recording or OVERWRITE to overwrite the HDD when HDD is full 「**Stop**」: Stop Recording 「**Overwrite**」: Start overwriting from the oldest data of HDD and continuing record.
OSD Position X	Setup OSD X axis
OSD Position Y	Setup OSD Y axis
OSD Position Setup	Preview OSD position
Video Preservation	Setup the video preservation period. Recorded video will be deleted automatically after expiration of preservation period.
Quality & Frame Rate Setup	Setup the quality and frame rate for each channel under normal recording and event recording type.

Quality & Frame Rate Setup



Item	Description
Normal Setup/ Event Setup	Select recording mode
Resolution	Select recording resolution: NTSC:360x240, 720x240, 720x480 PAL:360X288,720X288,720X576
Record Type	Setup quality and FPS separately for record type.
No.	Check/uncheck the box to enable/disable selected channel recording
Quality	Select Quality: Below Basic/ Basic/ Normal/ High/ Highest
FPS	Select recording frame rate.
Auto	Assign each channel automatically with its maximum available fps

3-3.2 Event Setup

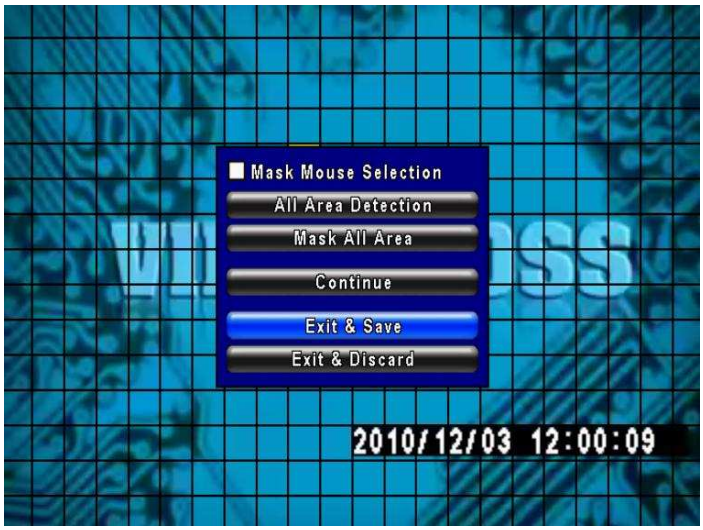
Item	Description
Motion Setup	Enter to set up motion detection

Motion Setup

Item	Description
Alarm Duration(Seconds)	Setup alarm duration when motion is detected.
1~4	Select desire channel for motion setup.
Enable	Check to Enable/Disable motion detection for each channel.
Sensitivity	Drag the white bar or press □ □ to set up Sensitivity from value 1 to 10 for each channel. **The lower value you set, the higher sensitivity will be**.
Motion Area Setup	Setup motion detection area

Motion Area Setup

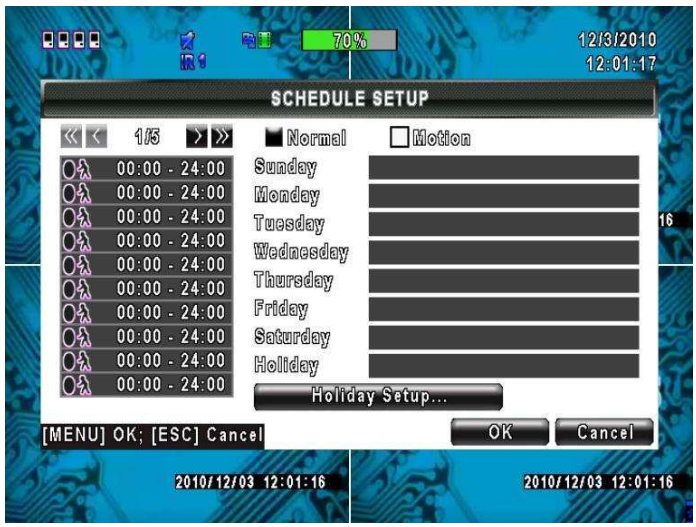
The motion detection has been divided into 16x12 grids. The default detection area is full screen as it marked in transparent for local DVR and purple for remote access. Areas deselected for motion detection are marked in red for both local and remote access. **Right click on Mouse to bring up the Menu below**.



Item	Description
Mask Mouse Selection	Switch between “select” and “deselect” for cursor-dragging function
All Area Detection	Select entire screen as detection area.
Mask All Area	Deselect entire detection area.
Continue	Continue setup
Exit & Save	Save setup and exit
Exit & Discard	Cancel setup and exit

3-3-3 Schedule Setup

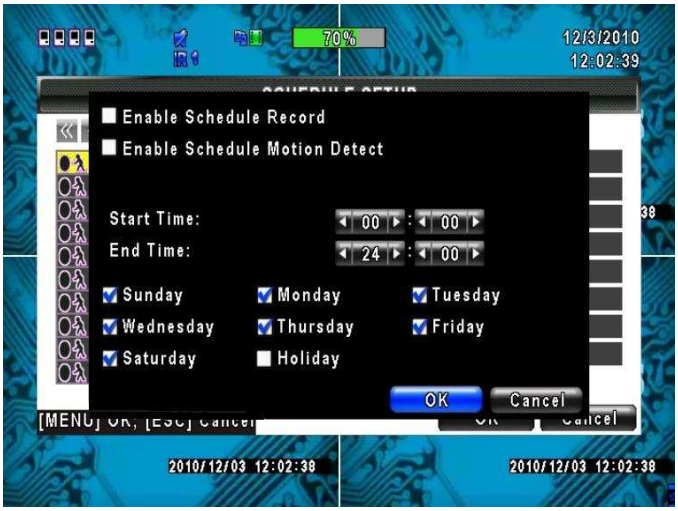
Besides manual recording, user can schedule the recording time by weeks, normal, motion detect, and recording type.



Item	Description
Page	Each page provides 10 schedules for setup. 5 pages in total.
Holiday Setup	Enter to setup holiday recording. Maximum 50 days.
View Event/ Motion/ Sensor Setup	View Normal/ Motion/ Sensor Setup

Schedule Record Setup

Click the time on the left side and the setup menu will appears. User may select detailed setup by dates, Time and event.



Holiday Setup

Since holidays are vary in every country and region, user may setup the holiday based on individual location accordingly.

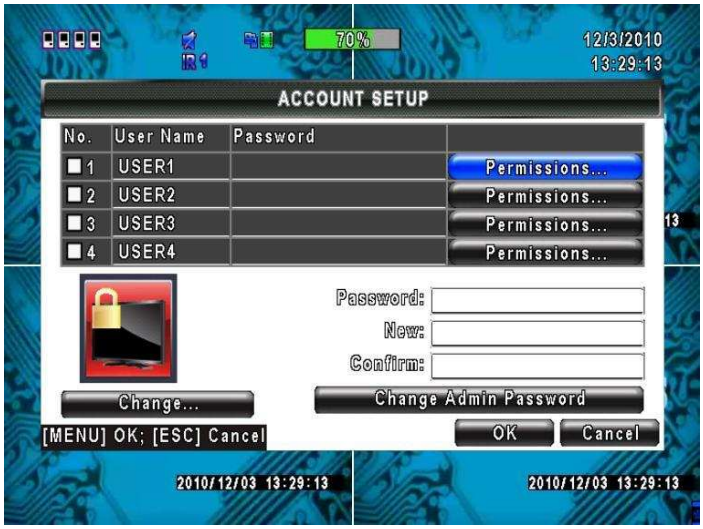
3-3-4 Camera Setup

Item	Description
1~4	Setup each channel independently.
Mask	Check to Enable/Disable mask function for LIVE mode
Sharpness	Drag the bar or press □ □ to adjust camera sharpness from value 0 to 15. The default value is 1.
Brightness	Drag the bar or press □ □ to adjust camera brightness from value 1 to 255. The default value is 128.
Contrast	Drag the bar or press □ □ to adjust camera contrast from value 1 to 255. The default value is 100.
Chroma(U)/(V)	Drag the bar or press □ □ to adjust camera chrominance from value 1 to 255. The default value is 128.
Hue	Drag the bar or press □ □ to adjust camera hue from value 1 to 255. The default value is 128. (PAL system does not support this function).
Name	Set up each channel name.
Volume	Adjust audio volume for **CH1** under LIVE mode and recording mode.(Only 1 CH can be adjusted in 4CH model series)

3-3-5 Account Setup

The Account Setup menu is to provide role-based permission for each user (maximum of 4 users) to access DVR over network. The default Administrative account and password is **“admin”** and “**123456**”

(The default password remains unchanged after firmware upgrade)



Item	Description
No.	Check to activate the user account.
Username	Set up username (case sensitive)
Password	Set up password for each user. 8-digits password is required and can be mixed by letters and numbers with case-sensitive.
Permissions	Set up Permissions for each user
Change Admin Password	Change administrator password
Picture	Change user picture

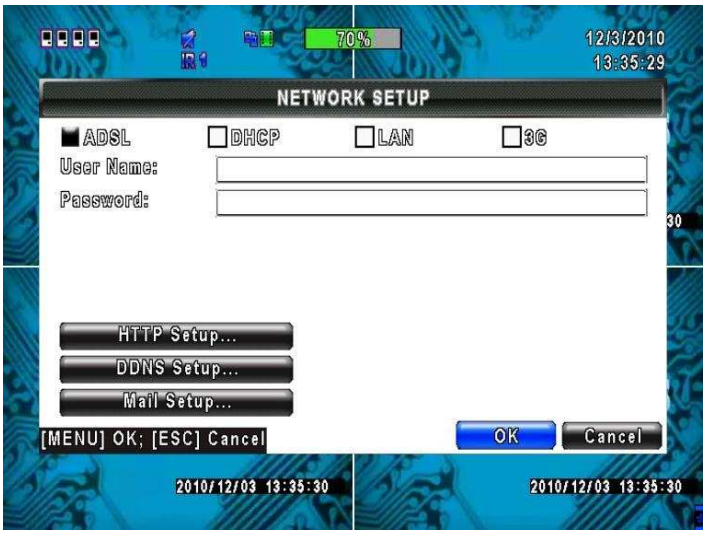
Permission Setup

The Account Setup is set to provide individual user (maximum of 4 users) role-based permissions, including access to Setup menu, Network operation, PTZ function, Playback, Utility, Backup, Password expiration date and Mask on specific channels while playing back.

User Picture Setup

User can upload profile picture from hard drive.

3-3-6 Network Setup

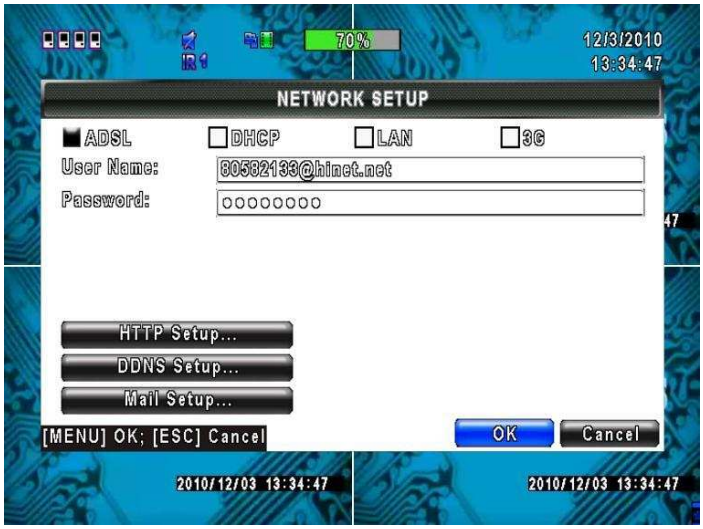


Item	Description
Connect type	Setup mode for network connection: **(ADSL、DHCP、LAN、3G).**
HTTP Setup	Enter to set up HTTP
DDNS Setup	Enter to set up DDNS
Mail Setup	Enter to set up mail
3G Setup	Enter to set up 3G network

There are four ways to connect to the network as followed.

ADSL

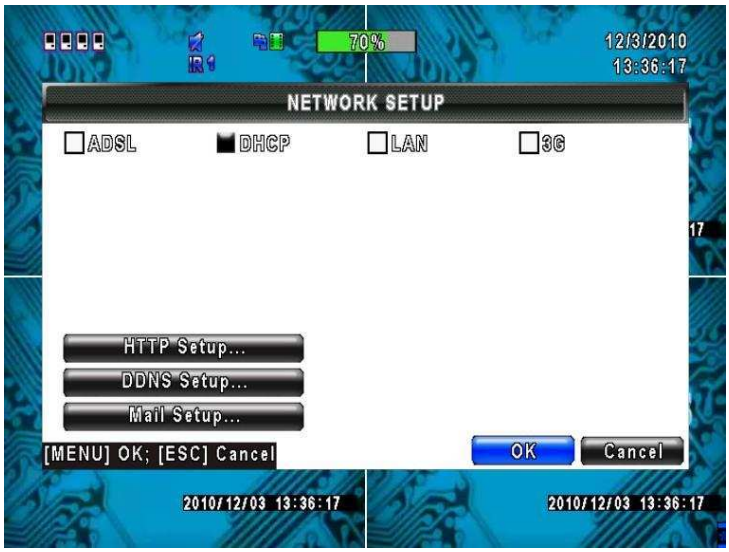
Select ADSL for network connection, the following information is required.



Item	Description
User Name	Enter user name provided by ISP
Password	Enter password provided by ISP

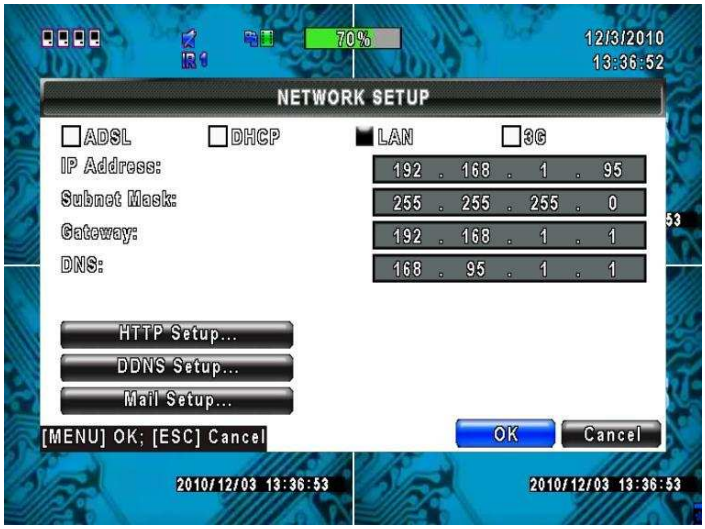
DHCP

When DHCP is selected, IP address will be assigned by DHCP server automatically.



LAN

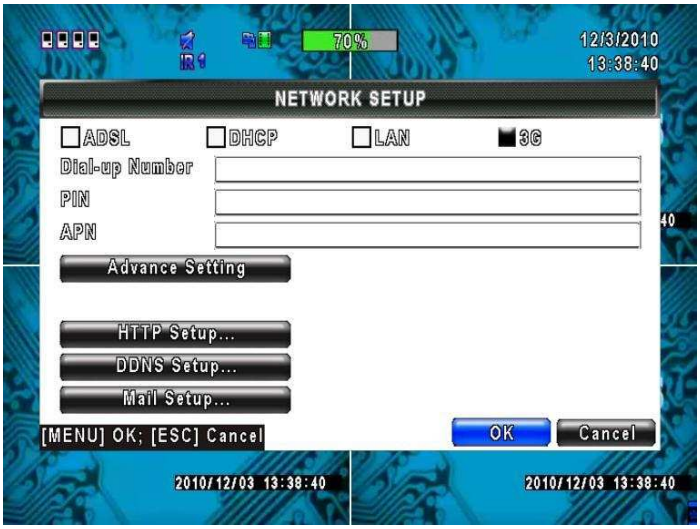
Select LAN for network connection, the following information is required.



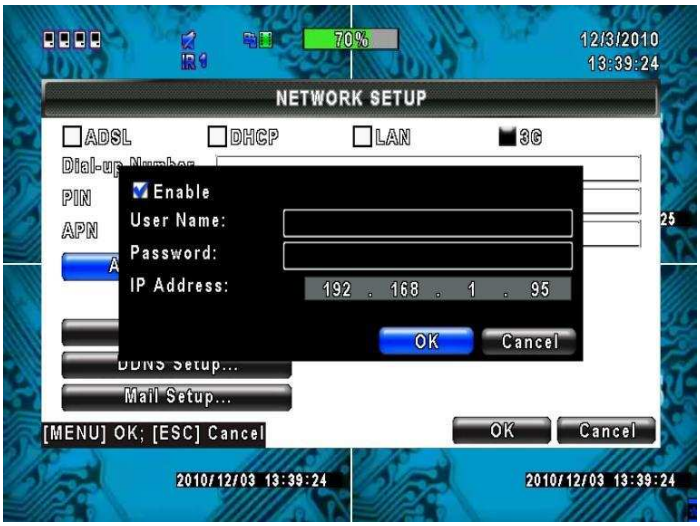
Item	Description
IP Address	Enter IP address provided by ISP
Subnet Mask	Enter IP address of Subnet Mask provided by ISP
Gateway	Enter IP address of Gate way provided by ISP
DNS	Enter DNS address provided by ISP. (The correct DNS address must be entered for DDNS function).

3G

Select 3G for network connection, the following information is required.



Item	Description
Dial-up Number	Provided by 3G provider
PIN	Enter SIM card password
APN	Vary from 3G providers
Advance Setting	The advanced settings



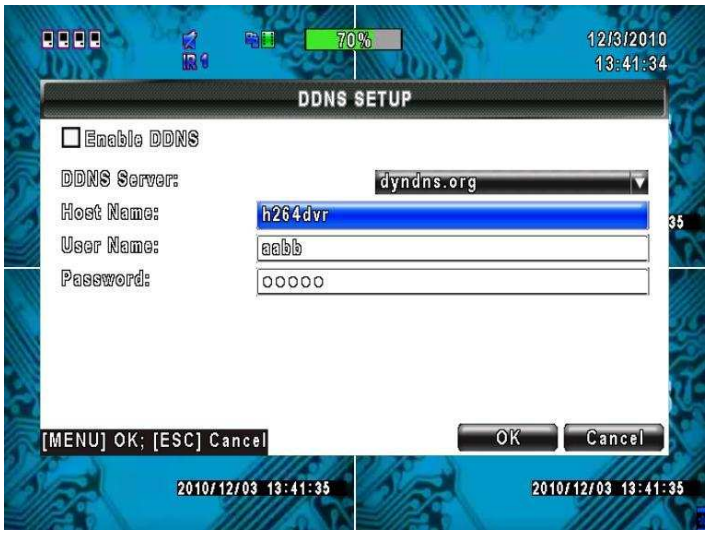
Item	Description
Enable	Enable advance setting
User Name	Enter ISP username
Password	Enter ISP password
IP Address	Enter the ISP provides a fixed IP address。 (Enter a fixed IP if the client uses the Internet only)

Note：Only supports Huawei 3G sim card currently.

HTTP Setup

Item	Description
Enable HTTP Server	Check to enable remote viewing feature. Users can remotely access into the DVR over the network if the HTTP function is enabled.
Port	Enter a valid port value from 1 up to 65000. The default value is 80.
Auto	Assign each channel with its maxima accessible fps
No.	Enable remote viewing channel number
Quality	Set up record quality among below basic, basic, normal, high, highest
FPS	Set up record FPS

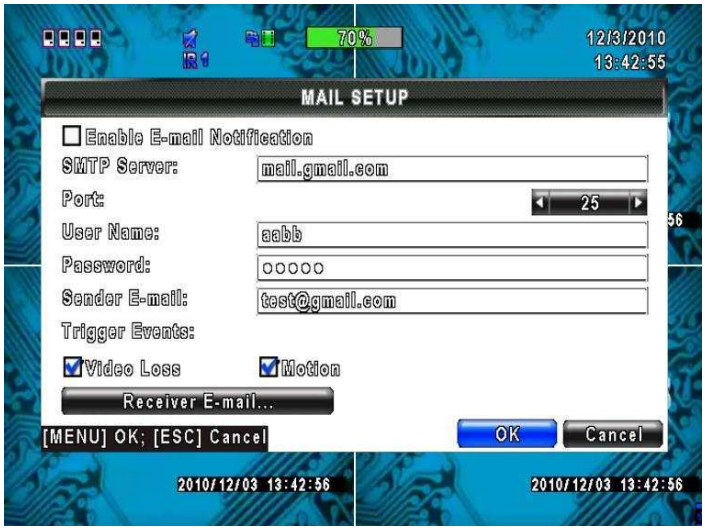
DDNS Setup



Item	Description
Enable DDNS	Enable/disable DDNS function.
DDNS Server	Enter the registered SMTP Server: **ez-dns＊、I-DVR.NET＊ 、DYNDNS.ORG、NO-IP.ORG、3322.ORG**
Host Name	Enter the completed registered SMTP Server. (Including username + Server) For example: If the user name is h4120e and dyndns as a server, you must enter: h4120e.dyndns.org
User Name	Enter user name.
Password	Enter password.

Mail Setup

Email notification will be sent to recipient account automatically when event occurs (VLOSS, MOTION).



Item	Description
Enable E-mail Notification	Check to enable/disable E-mail Notification function.
SMTP Server	Enter SMTP Server name. (Varies according to the user)
User Name	Set up User Name.
Password	Set up Password.
Sender E-mail	Set up recipient e-mail address.
Trigger Event	Setup email notification when Motion, Sensor and Vloss (Video Loss) event are triggered.
Receiver E-mail	Enter to set up e-mail addresses. Maximum10 recipients.

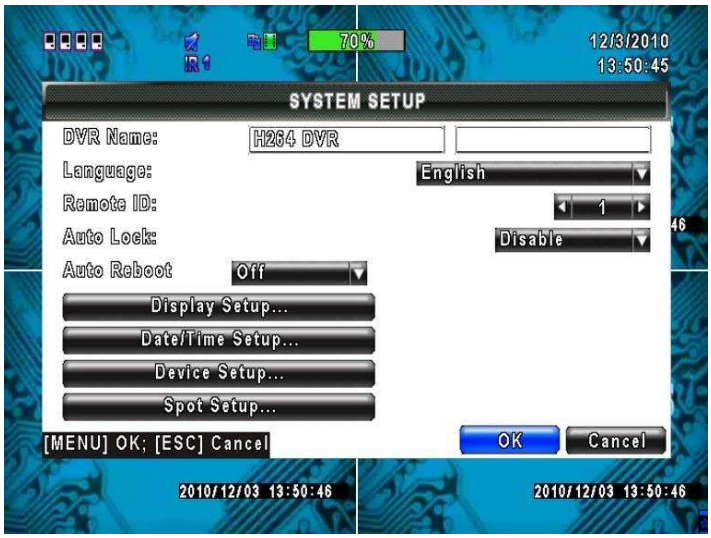
3-3-7 PTZ & RS485 Setup

The DVR allows users to control PTZ camera. To enable PTZ function, a 485 cable must connect to the RS-485 port of DVR.

Item	Description
Enable PTZ	Click to Enable/Disable PTZ function for each channel.
Protocol	Set up the protocol of PTZ camera. The supported protocols are **PELCO-P, PELCO-D, KND, LI-LIN, SAMSUNG, LG, AVTECH.**
PTZ ID	Click or press □ □ to set up PTZ ID. The valid ID value is from 1 to 64.
Baud Rate	Select PTZ baud rate from 2400, 4800, 9600,19200
RS-485 ID	Select RS-485 ID from 1 to 64
RS-485 Baud Rate	Select RS-485 Baud Rate from 2400. 4800, 9600,19200
Keyboard	Select Keyboard.

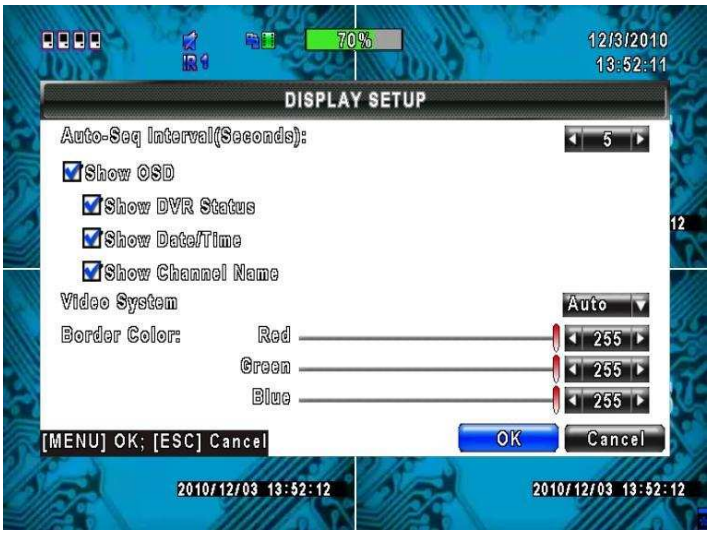
Note：4CH DVR will display 4 channels.

3-3-8 System Setup



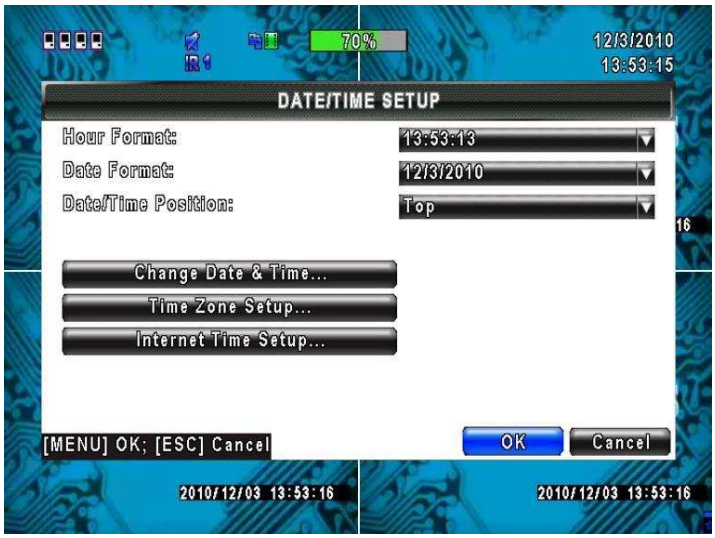
Item	Description
DVR Name	The name of DVR will be shown when users login from remote access.
DVR Location	The location of DVR will be shown when users login from remote access
Language	Click or press ▼ to select OSD language.
Remote ID	Default ID is 0. DVR is controlled by provided remote control.
Display Setup	Enter to set up Display
Date/Time Setup	Enter to set up Date/Time
Device Setup	Enter to set up Buzzer & Relay
Spot Setup	Enter to set up Spot

Display Setup



Item	Description
Auto-Seq Interval	Set up duration time in seconds for the interval among channels under Auto-Seq mode.
Show OSD	Turn On / Off OSD display
Show DVR Status	Turn On / Off DVR illustration and record status display
Show Date/Time	Turn On / Off date and time display
Show Channel Name	Turn On / Off channel name display
Border Color	Set up the color of border in LIVE , PLAYBACK mode（Red, Green, Blue）.

Date/Time Setup



Item	Description
Hour Format	12HOURS/ 24HOURS
Date Format	MM-DD-YY/DD-MM-YY/YY-MM-DD
Date/Time Position	Choose the position of Time and Date display
Change Date & Time	Setup time and date of DVR
Time Zone Setup	Set up GMT and Daylight Saving Time.
Internet Time Setup	Setup automatic synchronization with internet server

Change Date & Time

Setup date and time of DVR manually.

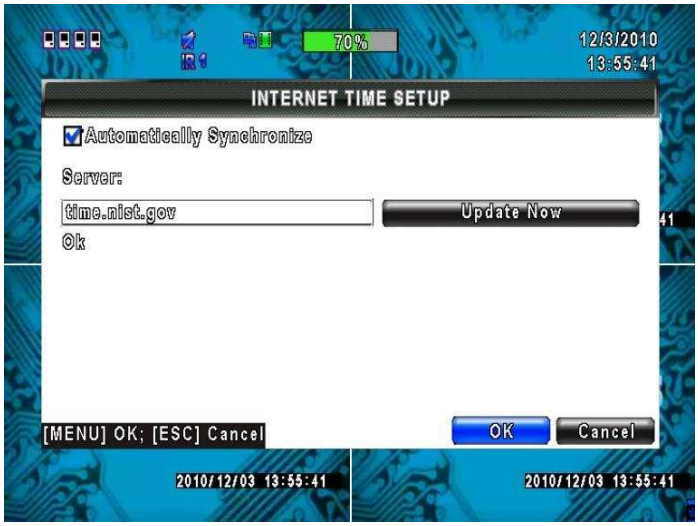
Time Zone Setup

Set up time zone and activate Daylight Saving Time function according to user's DVR location.

Item	Description
Select Time Zone	Enter to modify GMT from GMT- 13 to GMT+ 13
Daylight Saving Time	Turn on/ off Daylight Saving Time

Internet Time Setup

Synchronize DVR time with internet time server.



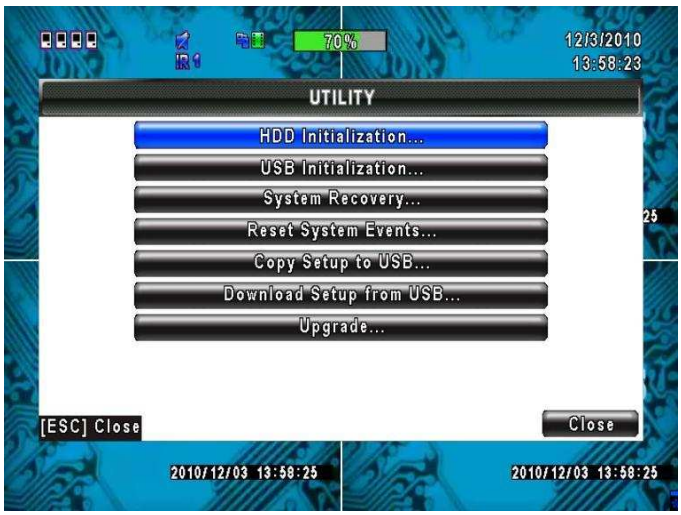
Item	Description
Automatic Synchronization	Check to enable DVR automatic synchronization function. DVR will automatically synchronize the time upon rebooting or by every 24 hours after booting.
Update Now	Date and Time show on DVR will immediately correspond with internet server.

Device Setup

Item	Description
Mouse Speed	Adjust mouse cursor sensitivity (Only Local machine)
Buzzer Setup	Enter buzzer setup.

Item	Description
Key Tone	Enable/Disable key tone.
Buzzer	Enable/Disable buzzer operation when HDD Error, Motion and Vloss (Video Loss) are triggered.

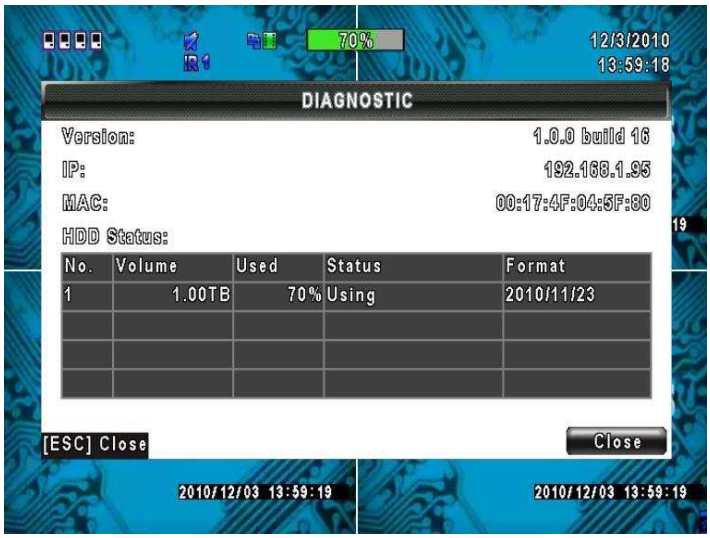
3-3-9 Utilities Setup



Item	Description
HDD Initialization	Select to enter hard disk initialization menu. **Please stop recording before entering this menu.** DVR will show all HDD data such as model and volume. Check the HDD you would like to initialize and press “Start”. HDD initialization is successful when the status shows “Succeed”
USB Initialization	Clean up all data on USB. Enter USB initialization and press YES to clean up all data on your USB. The initialization is done when it’s showed “Succeed”.
System Recovery	Restore system default values
Reset System Events	Reset all recording events in DVR.
Copy Setup to USB	Copy configuration to a USB device. There will be a file named 「sdvr_conf.dat」in your USB.
Download Setup from USB	Download configuration from a USB device into DVR.
Upgrade	Upgrade DVR through USB. Please stop recording and backup setup configuration before upgrading. **System will reboot automatically when the upgrade is completed.**

Notice! DO NOT TURN OFF POWER OR UNPLUG USB DEVICE DURING THE UPGRADE as it may cause incomplete firmware upgrade and damage to the DVR.

3-3-10 Diagnostic

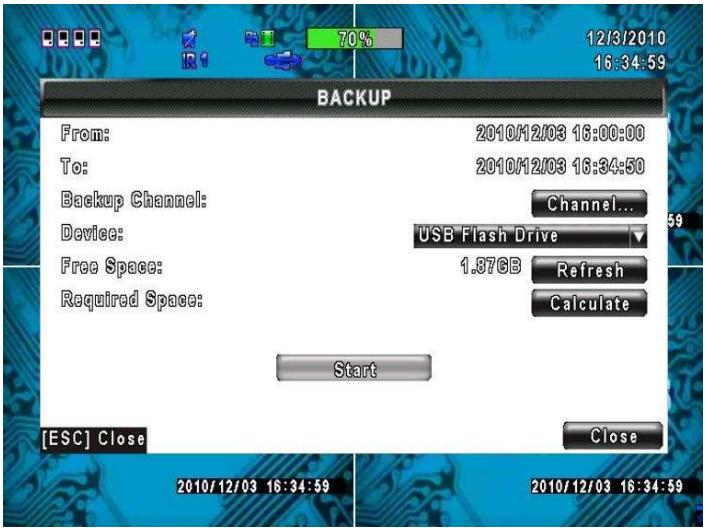


Item		Description
Version		The current DVR firmware version
IP		Current IP address assigned to DVR. If disconnected from network, the screen will display" NETWORK DISCONNECT".
MAC		MAC Address of DVR
HDD Status	**No.**	HDD number
	Volume	HDD Capacity
	Used Rate	Percentage of space used on HDD.
	Status	Shows HDD status. **USING** means the HDD is being used for recording now **GOOD/BAD** means the HDD has a known/unknown format for the DVR. (Note: Please initialize any new HDD before using it.)
	Format Time	The latest format time of HDD

3-4 Backup Mode

User can backup any segment of recorded data in a specified time frame. To do so, either a CD R/W or storage device, like USB, must be connected to the DVR. The format of backup file is *IRF* file that can be played by both “BackupPlayer” and “CMS” software.

＊:DVR system will automatically copy "BackupPlayer" software to the USB when performing USB backup process.



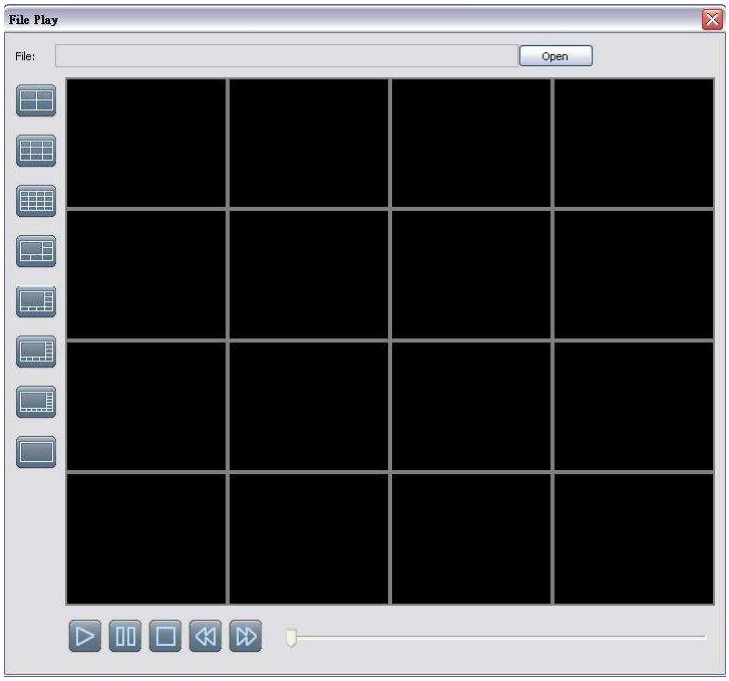
Item	Description
From	The start time of backup file
To	The end time of backup file
Device	Select USB or PC as the backup device
Free Space	The available space in your backup device. (not available for PC backup)
Refresh	Recalculate the available space of backup device. (not available for PC backup)
Required Space	Show the size of the backup file
Calculate	Calculate the size of backup file
Start	Start backup operation. Be sure to calculate the size of backup file BEFORE operating backup.

Note! Do not unplug the USB device or turn off the DVR during the backup process to avoid unrecoverable error.

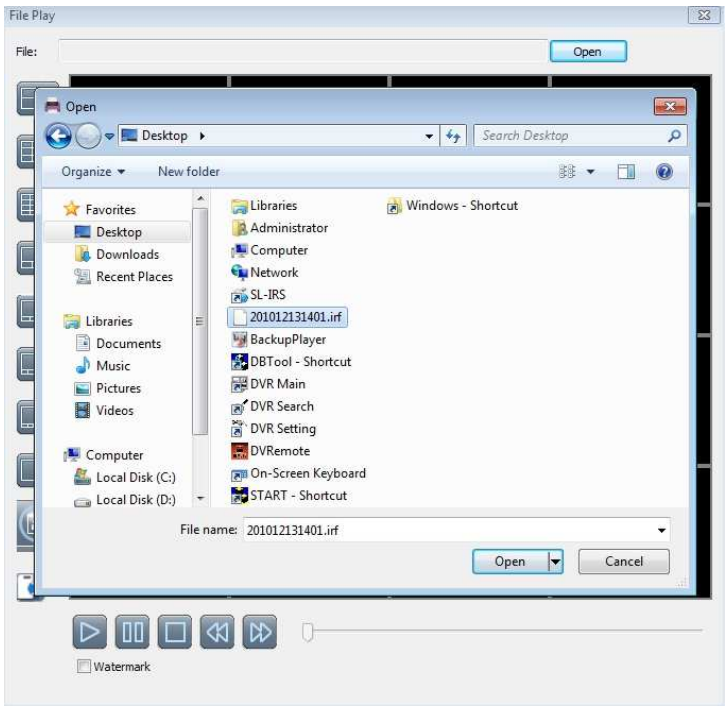
Backup Player Use Method

Step 1: Install 「Backup Player」software to your PC. You can get file from the provided software CD.
PS: When using USB to backup file, BackupPlayer.exe will be copied to USB along the backup file automatically.

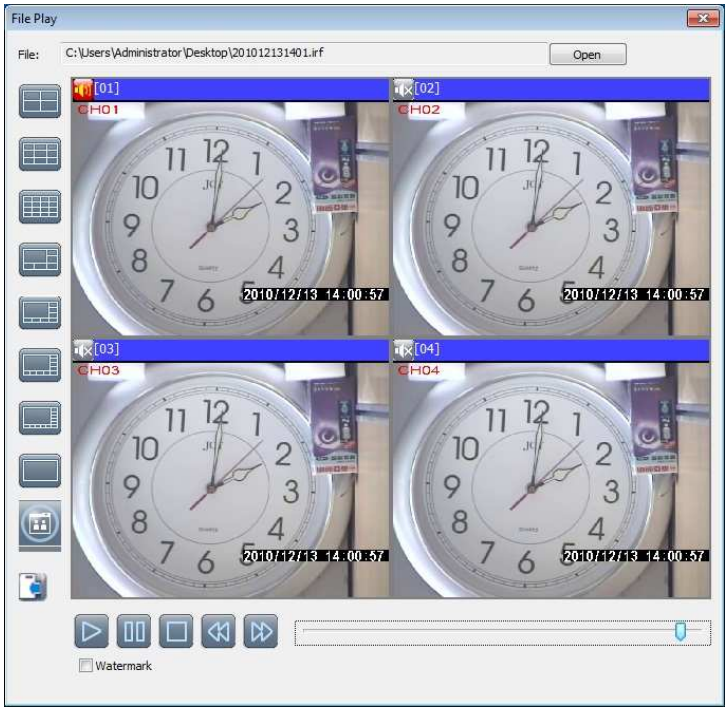
Step 2：Setup「Backup Player.exe」。



Step 3：Click「open」to choose and start a DVR backup file。



Step 4：Software will play the backup file automatically.



3-5 Search Mode

Item	Description
Event Search	Event search menu
Time Search	Enter time search menu

Event Search

The DVR automatically records events with type, time and channel information included. If there is recording data for an event, a signal will be shown on the left side of time information. Rest your cursor under the line and press “enter”, or left click your mouse to playback the recording data.

P.S. Event Records will still be generated even when hard disk is not installed or the record function is not activated. However, the record cannot be viewed after selecting it.

Item	Description	
Criteria	Setup conditions of event search	
Page	Switch between pages of events	
Date/Time	Date/time when event occurred.	
Event Type	Event type, defined as following	
	MOTION	Motion Detected
	Video Loss	Video Loss
	Remote Login	user log-in over the network
	Remote Logout	user log-out over the network
	Power On	DVR Power on
	HDD Full	HDD disk space is FULL
	HDD Error	Detect HDD error
	Reboot	DVR Reboot
Info	The channel where event occurs or login user	

Criteria Setup

The amount of events can be numerous. Therefore, user may facilitate event sorting by setting up “criteria”. Setup “start time” and “end time” for event search, then the search result will be limited to this specific period of time. Only checked events and channels will be sorted in event search.

Time Search

TIME SEARCH can search for the specific time of recording data to playback. Press “Enter” or left click on the desired date to playback. Note that dates with recording data are marked with a red square “ □ “System will start playing back according to the date you selected. Calendar will be shown by using mouse to click on “year” and “month”.

Click “date” to display recording time of that specific date with time bar. You can change time (hour/minute/second) or click on a specific time of time bar by mouse then press “**ok**”. DVR will playback the selected recording data.

4. Remote software

4-1 Remote Software Installation and instruction

4-1-1 Remote monitoring through DVR Remote

Remote software:「DVR Remote」allows user to access and control the DVR from PC remotely.

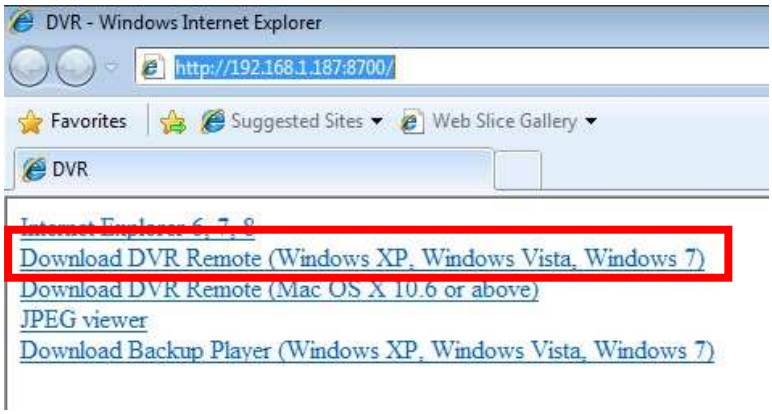
Note: Support Windows XP SP2 and above and Windows Vista, Windows 7

Step 1：Enter the IP address of DVR in IE browser

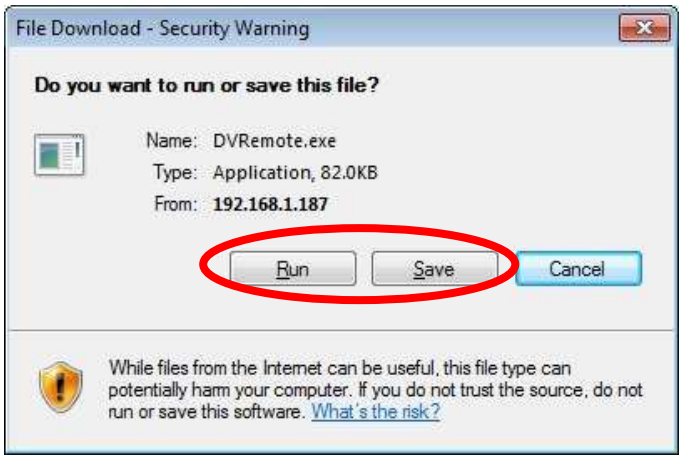
Step 2: Windows as below will appears. Please enter the user name and password. Default user name and password is **admin/123456**. Please refer to section **"3-3-5 Account Setup**" for other related setup.

Windows Security
The server 192.168.1.187 at . requires a username and password.
Warning: This server is requesting that your username and password be sent in an insecure manner (basic authentication without a secure connection).
admin
Remember my credentials
OK
Cancel

Step 3: Click on the link to start downloading the Remote software.

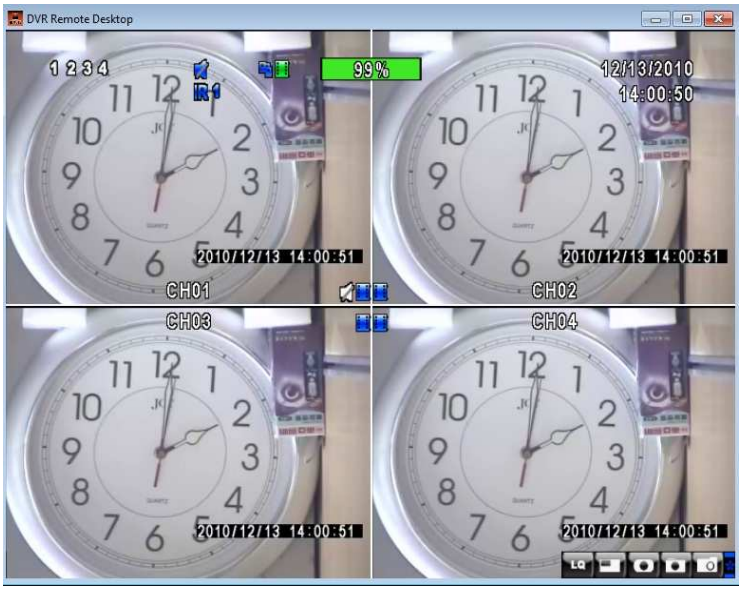

DVR - Windows Internet Explorer
http://192.168.1.187:8700/
Favorites
Suggested Sites
Web Slice Gallery
DVR
Download DVR Remote (Windows XP, Windows Vista, Windows 7)
Download DVR Remote (Mac OS X 10.6 or above)
JPEG viewer
Download Backup Player (Windows XP, Windows Vista, Windows 7)

Step 4: Run or Save the Remote software.


File Download - Security Warning
Do you want to run or save this file?
Name: DVRemote.exe
Type: Application, 82.0KB
From: 192.168.1.187
Run
Save
Cancel
While files from the Internet can be useful, this file type can potentially harm your computer. If you do not trust the source, do not run or save this software. What's the risk?

Step 5: If you choose to run the software, Start window will be shown up. Please enter information of login DVR: IP, Port, Username and Password

Step 6: You' have logged into the DVR



4-1-2 Remote monitoring through Internet Explorer

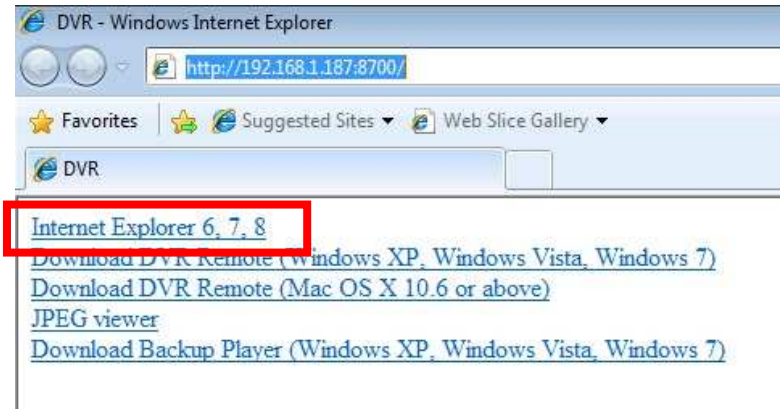
Step 1：Enter the IP address of DVR in IE browser. The address appeared in this image is only for demonstration. Actual address is depending on the setup of on-site DVR.

Step 2: Windows as below will show up. Please enter the user name and password. Default user name and password is **admin/123456**. Please refer to section **"3-3-5 Account Setup**" for other related setup. The user name and password appeared in this image is only for demonstration. Actual user name and password depend on the setup of on-site DVR.

Windows Security
The server 192.168.1.187 at . requires a username and password.
Warning: This server is requesting that your username and password be sent in an insecure manner (basic authentication without a secure connection).
admin
Remember my credentials
OK
Cancel

Step 3: Click on "Internet Explorer 6, 7, and 8"to start downloading the Remote software. (The first option is for IE view, please refer to next chapter for more information)

p.s. There will be IE connection security issue when clicking this link for the first time. Please refer to index II for Remote Monitoring IE ActiveX Control Installation Instruction.


DVR - Windows Internet Explorer
http://192.168.1.187:8700/
Favorites
Suggested Sites
Web Slice Gallery
DVR
Internet Explorer 6, 7, 8
Download DVR Remote (Windows XP, Windows Vista, Windows 7)
Download DVR Remote (Mac OS X 10.6 or above)
JPEG viewer
Download Backup Player (Windows XP, Windows Vista, Windows 7)

Step 4: DVR images appear.

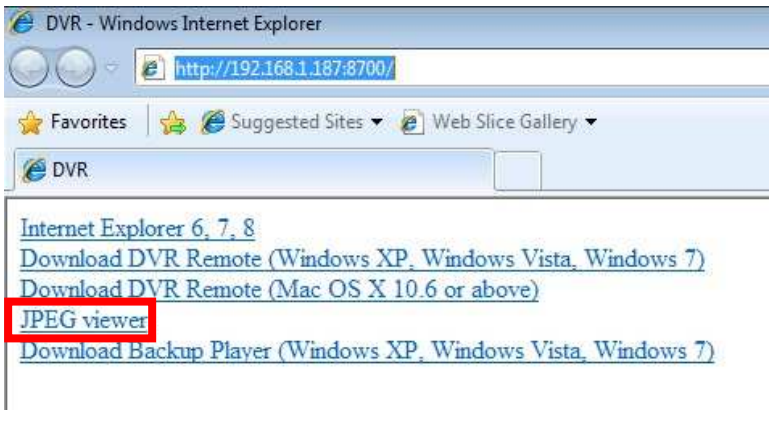
4-1-3 Remote monitoring through JPEG Viewer (Monitor Function Only)

Step 1：Enter the IP address of DVR in IE browser. The address appeared in this image is only for demonstration. Actual address is depending on the setup of on-site DVR.

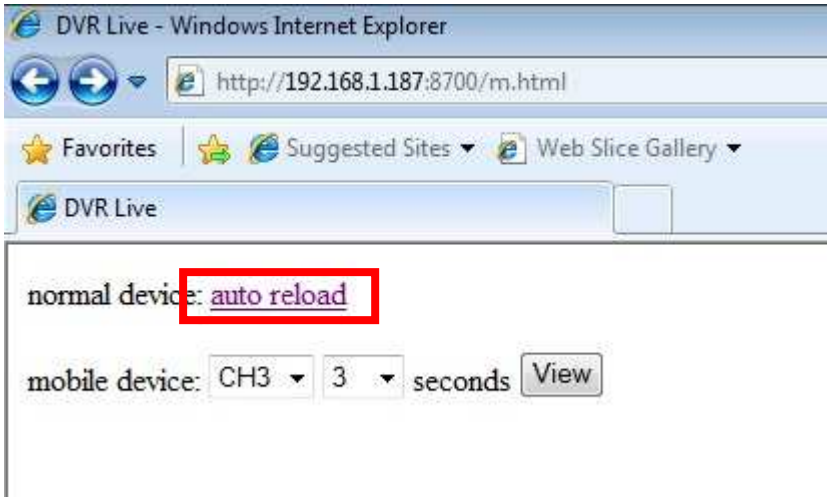
Step 2: Windows as below will show up. Please enter the user name and password. Default user name and password is **admin/123456**. Please refer to section **"3-3-5 Account Setup**" for other related setup. The user name and password appeared in this image is only for demonstration. Actual user name and password depend on the setup of on-site DVR.

Windows Security
The server 192.168.1.187 at . requires a username and password.
Warning: This server is requesting that your username and password be sent in an insecure manner (basic authentication without a secure connection).
admin
Remember my credentials
OK
Cancel

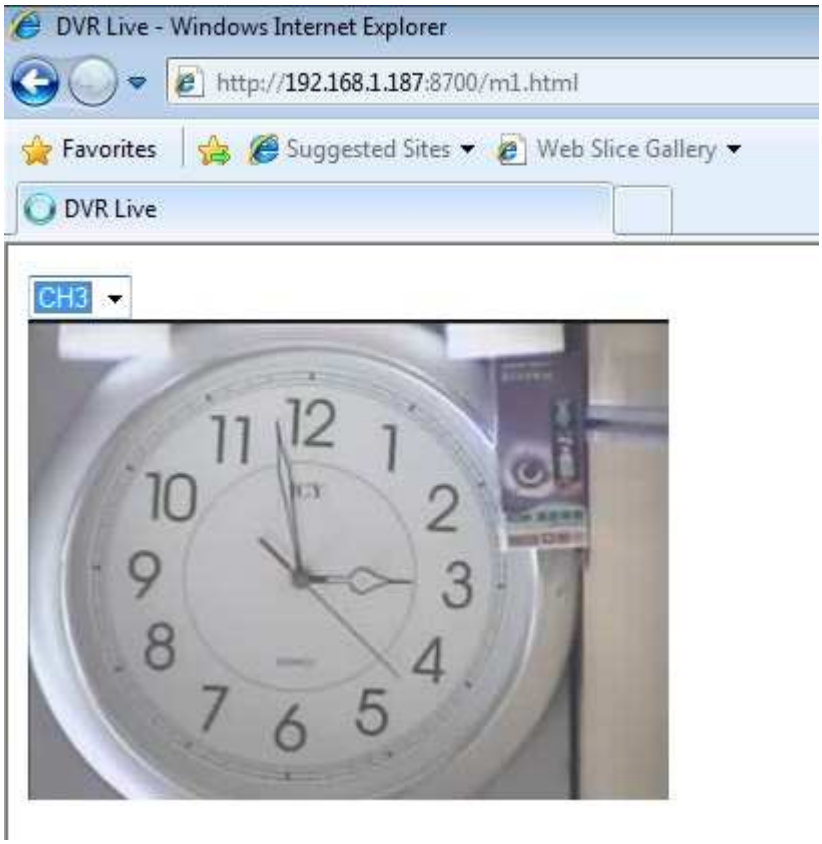
Step3: Click on "Jpeg Viewer"


DVR - Windows Internet Explorer
http://192.168.1.187:8700/
Favorites
Suggested Sites
Web Slice Gallery
DVR
Internet Explorer 6, 7, 8
Download DVR Remote (Windows XP, Windows Vista, Windows 7)
Download DVR Remote (Mac OS X 10.6 or above)
JPEG viewer
Download Backup Player (Windows XP, Windows Vista, Windows 7)

Step 4: Click on “auto reload”.



Step 5: DVR images appear.



NOTE: Jpeg Viewer only for live viewing purposes.

Remote Software Operation

Execute “DVRemoteDesktop.exe” file and enter DVR information such as “IP address”, “Port” “Username” and “Password”. The default username and password are 「admin / 123456」

“DVR Remote.exe” software provides some extra functions for remote users. Please check **Table 4-1-1** for minimum system requirements for “DVR Remote.exe” operation.

Table 4-1-1 System Requirements for AP software

CPU	Intel Pentium 4 above
OS	Microsoft Windows 7、Windows Vista、Windows XP SP2 above
RAM	512M above
VGA Card	Needed to support DirectX9.0 (Above) Note 1
Others	DirectX 9.0 above

Note 1:

Known VGA card that support DirectX9.0 currently:

NVIDIA: Geforce FXseries, Geforce 6series, Geforce 7series, Geforce 8series, Geforce 9series, Geforce 200series, etc.

Or visit: http://en.wikipedia.org/wiki/Comparison_of_Nvidia_graphics_processing_units

ATI: Radeon R300series, Radeon R400series, Radeon R500series, Radeon R600series, Radeon R700series, Radeon HD 3xxx IGPseries, Mobility Radeonseries (9500 above), Mobility Radeon Xseries, Mobility Radeon HDseries, or FireGL Vseries etc.

Or visit: http://en.wikipedia.org/wiki/Comparison_of_ATI_graphics_processing_units

SiS: SiS 67Xseries, or SiS 77Xseries etc.

Or visit: http://www.sis.com/support/support_compare.htm

Intel: 91Xseries, 94Xseries, 96Xseries, G3Xseries, or G4Xseries, etc.

Or visit: http://en.wikipedia.org/wiki/Intel_GMA

4-2 CMS Installation & Usage Guide

4-2-1 CMS Installation

System Requirement:

＊Intel Pentium 4 processor or equivalent.

＊Microsoft Windows Vista、Windows XP、Windows 2003 Server.

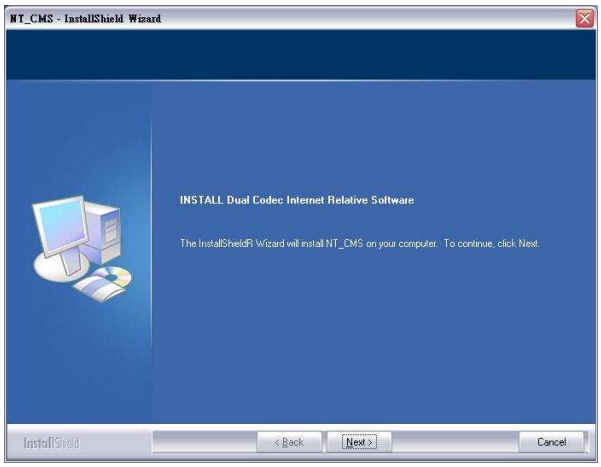
＊Besides OS and other required APs, there will be 512MB remaining memory needed or above. ＊512MB memory above.(500M requested for group DVR connection and 180M for single DVR)

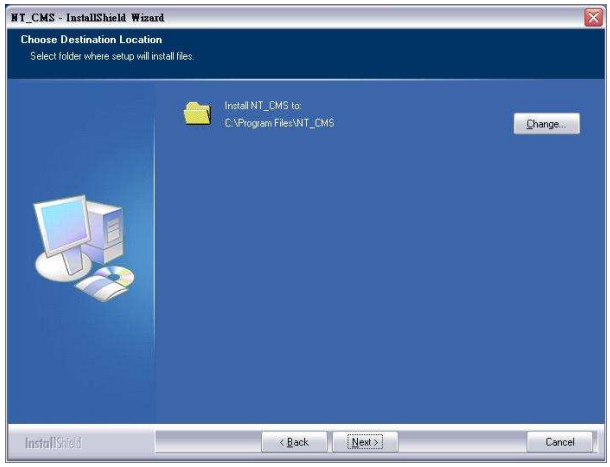
＊20MB HD space. Recording and image capturing require extra space for storage.

＊VGA Card needs to support DirectX9 and function well while running it. Please refer to p48 Note 1.

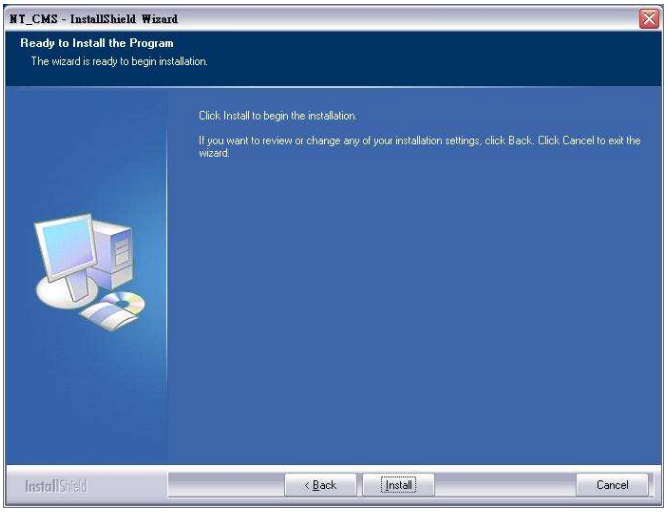
Installation:

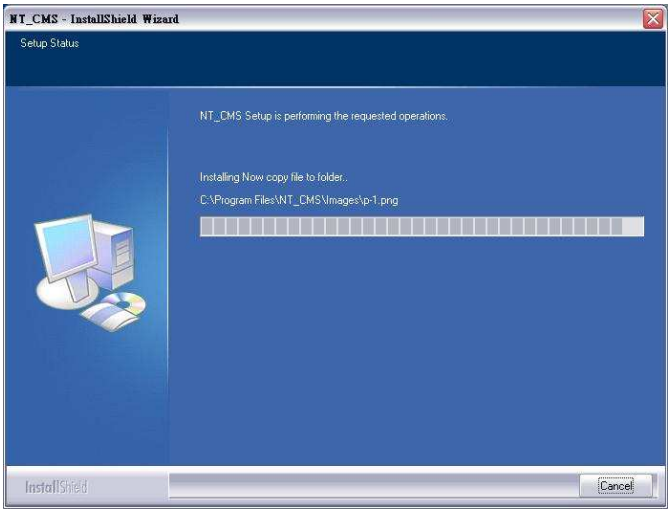
1. Connect to the manufacturer's website and download the CMS software.
2. Decompress and execute "**setup.exe"**.
3. Select "**Next"**, and then select "**Change"** to change installation path if needed. To check available space on hard disk, please select "**Disk Cost**" then select "**Next**" to the next step.


NT_CMS - InstallShield Wizard
INSTALL Dual Codec Internet Relative Software
The InstallShield® Wizard will install NT_CMS on your computer. To continue, click Next.
InstallShield
< Back
Next >
Cancel

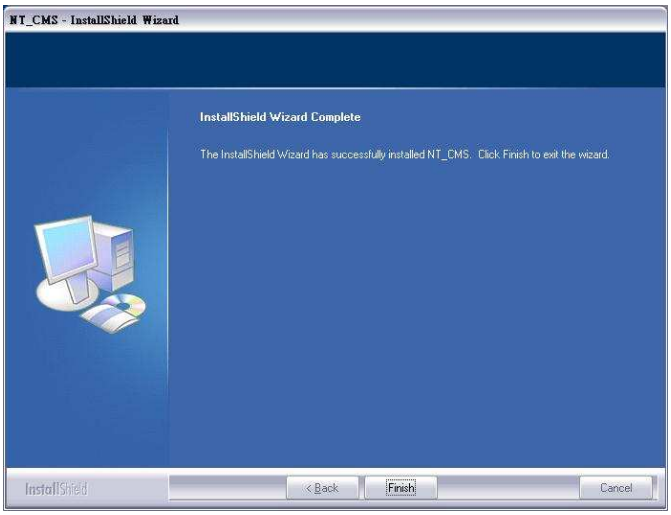


4. ”**Confirm Installation**” window shows. Select ‘**Install’** then the installation starts.


NT_CMS - InstallShield Wizard
Ready to Install the Program
The wizard is ready to begin installation.
Click Install to begin the installation.
If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard.
InstallShield
< Back
Install
Cancel

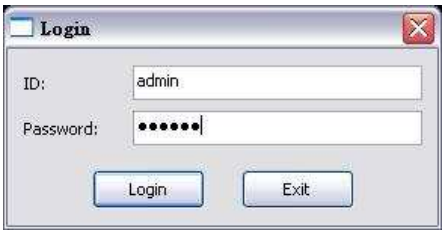


6. Select ‘**Finish’** to finish installation when the “**Installation Complete**” window appears.

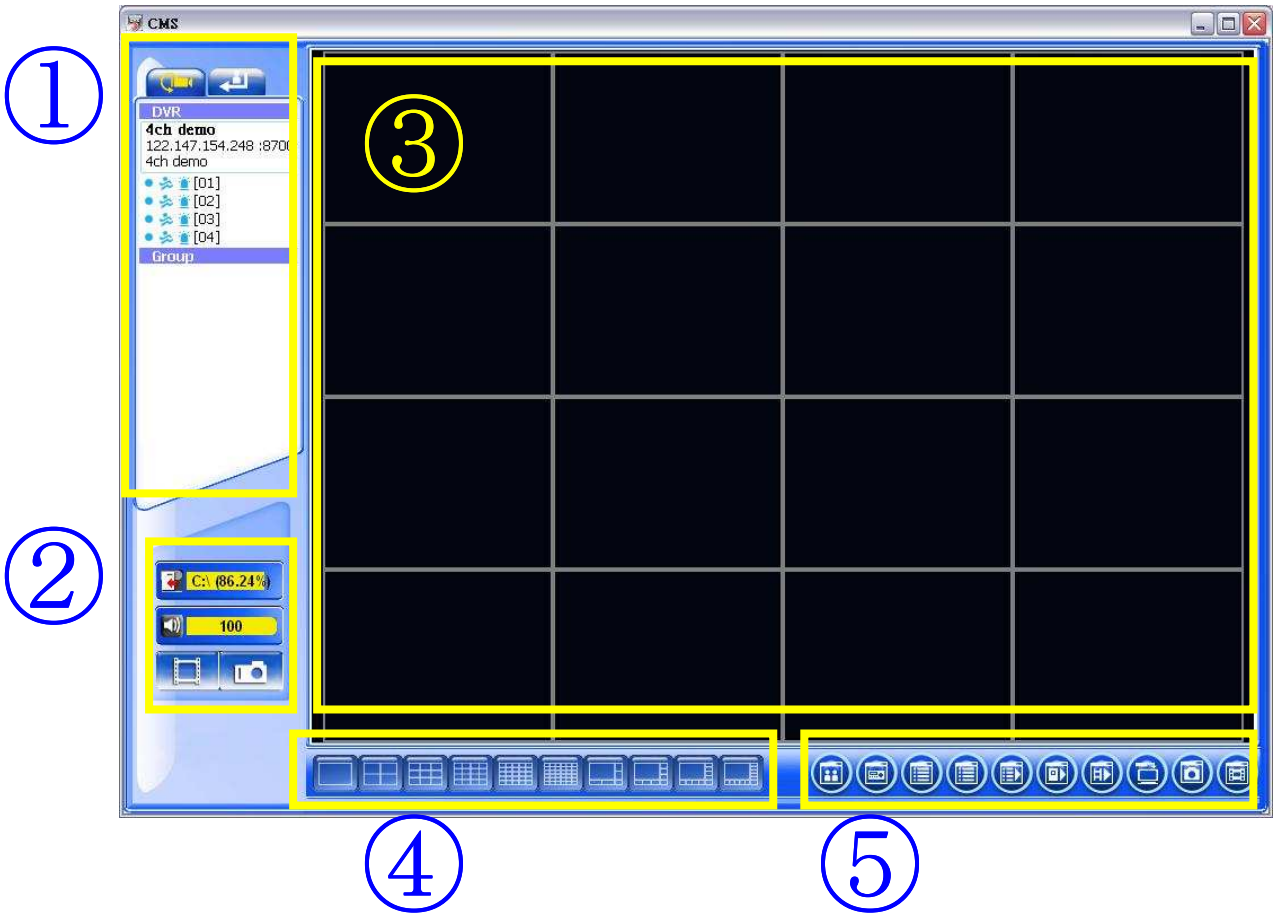


4-2-2 CMS Login & environment

Administrator user name and password are required to enter CMS software. The defaults are ‘admin’ and ‘123456’.



After successful login, the following image shows on your screen:



DVRs, Groups & Events	Information about DVRs, groups and events. See “4-2-3 Information List” for more detailed information.
PC information and control	Information about local PC’s hard disk, volume, recording...etc. See “4-2-4 PC Information and Control” for more detailed information.
Main Display	Live image display area. See “4-2-5 Main Display” for detailed information.
Display Modes	Several choices of display modes supported by CMS.
Operation Bar	A set of 10 operations are provided by CMS. See “ 4-2-6 Operation Bar” for detailed information .

4-2-3 DVRs, Groups & Events

Icon	Description
	View list of logged in DVR／ Group.
	View Logs: List all the event information of DVR

View DVR／Group List

Single left click on '**DVR'** or '**Group'** will expand/collapse the entire DVRs and groups list.

On the DVR list, **double left click on a connected DVR will show its image in main display.** Refer to section "4-2-6 DVR Administration" for further information.

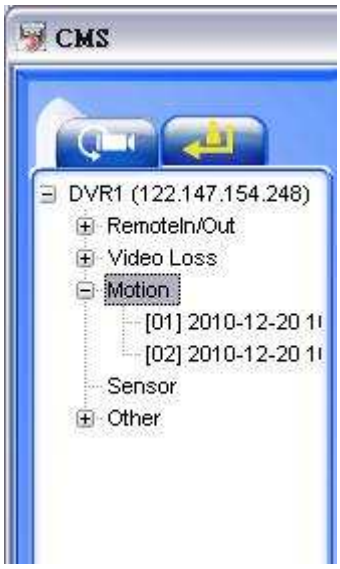
On the Group list, **double left click on a group will show live image from the channels of the group in the main display.** See "4-2-6 for Group Administration" for further information.

Left click on a connected DVR will expand/collapse status of its all channels as below:

Icon	Description
	Video Loss
	Motion Detected
	Sensor Triggered

View Event Logs

Under this page, all the events of a DVR can be expanded/collapsed in the order of Remote in/Remote out, Video Loss, Motion, Sensor, Others (Power Reset, Key Lock, Key Unlock, HD Full).



4-2-4 Local PC Information and Control

Located at the left lower corner of the screen, please see the chart below:

Icon	Function	Description
	HDD info	Shows the ratio of available space / HDD capacity of C:\ drive (where CMS is installed).
	Recording Directory	Setup Recording Directory. (Default is C:\Program files\CMS)
	Recording Cycle	Set the capacity size of the Recording space. (minimum is 10MB)
	Volume	PC volume or playback volume control bar.
	Recording	Record live image to local PC storage. To view locally stored data, use “Record” under the operation bar. Also see “4-2-6 recording data” for detail information.
	Snapshot	Take snapshot and save in local PC storage. To view all the snapshots, please go to “Snapshot” under the operation bar. See “9-6.5 Snapshot data” for detail information.

4-2-5 Main Display

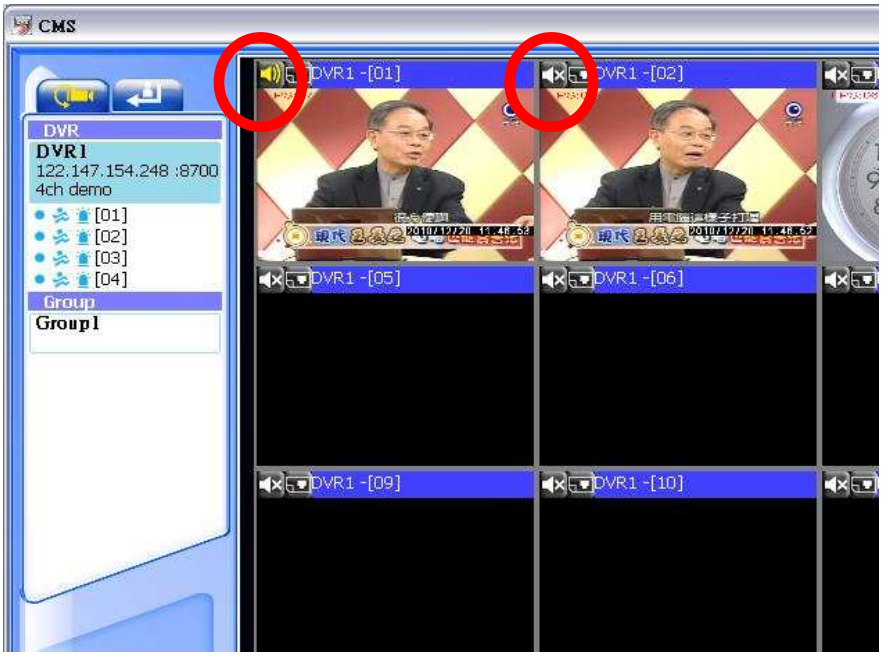
The main display area is where the live image of DVR is shown. Drag to change the location of screen for each channel and turn on/off audio signal with mouse-click.

Audio Control

In live mode, user many turn on/off the audio signal of Ch1~Ch4:

「 」 Audio signal is On 「 」 Audio signal is Off

Turn on/off by clicking on the graphical icon. Note: Only one channel audio signal to be on at a time.

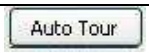
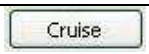


eMAP Display

In Live mode, pressing will bring the e-MAP drag-down menu. If the channel has been set up to use e-MAP, the menu will show all the e-MAP titles that have been entitled to this channel; otherwise, “No eMaps” will be shown. Please check “**4-2-6 eMAP administration”** for setup information.

PTZ Control

In the main display, right click on the channel will bring up PTZ control panel as below.

Icon	Description
8 direction key	Rotate the PTZ
	ZOOM+：Zoom in
	ZOOM　: Zoom out
	Setup the PTZ spot as pre-set N.
	FOCUS+ : Focus in
	FOCUS-：Focus out
	Move to pre-set N.
Set PTZ Preset	Setup 16 pre-set N.
Goto PTZ Preset	Move to specific pre-set N.
	Activate auto pre-set tour＊
PTZ Sensitivity	Setup PTZ sensitivity＊
	Setup the “start” and “end” of liner scan.＊
	Activate the liner scan cruise.＊
B	Adjust the Brightness (Down is +)
C	Adjust the Contrast (Down is +)
S	Adjust the Sharpness (Down is +)

＊ PTZ communication protocols from different brands may not compatible 100% sometimes. Therefore, some of these functions may be unavailable.

4-2-6 Operation Bar

10 Operations to be listed as below:

Table 4-2-1 description of 10 operations:

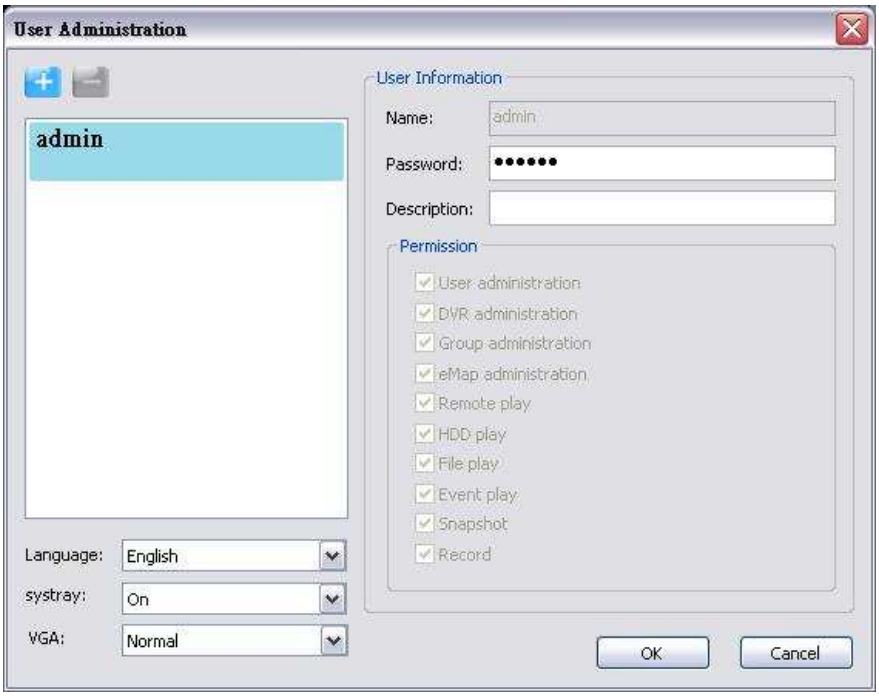
Icon	Description
	User Administration. Please see section “User administration”
	DVR Administration. Please see section “DVR Administration”
	Group Administration. Please see section “Group Administration”
	eMap Administration. Please see section “eMap Administration”.
	Remote Playback. Please see section “Remote Play”.
	HDD Playback. Please see section “HDD Play”
	File Playback. Please see section “File Play”
	Event Playback. Please see section “Event Play”
	Snapshot Data. Please see section “Snapshot”
	Recording Data. Please see section “Recording”

User administration

Before the CMS can be used on a PC, user accounts should be added with proper authority. Each user should also be assigned a password and optionally a description. If an user does not have certain authority assigned, he/she will not be able to operate the corresponding function on the Operation Bar. The default is none of the authority is assigned. The administrator should assign proper authority to each user. These user accounts can be deleted or edited later on.

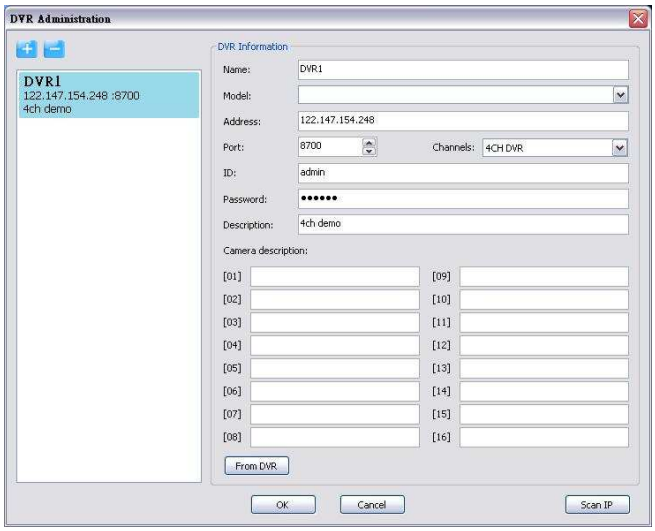
Select "**OK"** to save the setup.

Icon	Description
	Add a user account. The default authority is with none permission.
	Delete a user account.
Language	Switch display language
systray	Program is minimized on system tray when enable.(This feature is switched on / off, the need to re-open the CMS until after the program in force)
VGA turbo	Increase the VGA efficiency



DVR Administration

DVR connections can be added to or deleted from the CMS and their information can be edited. DVR's channel names can be entered here or downloaded from the DVR by pressing '**From DVR**'. Select "**OK**" to save the information.



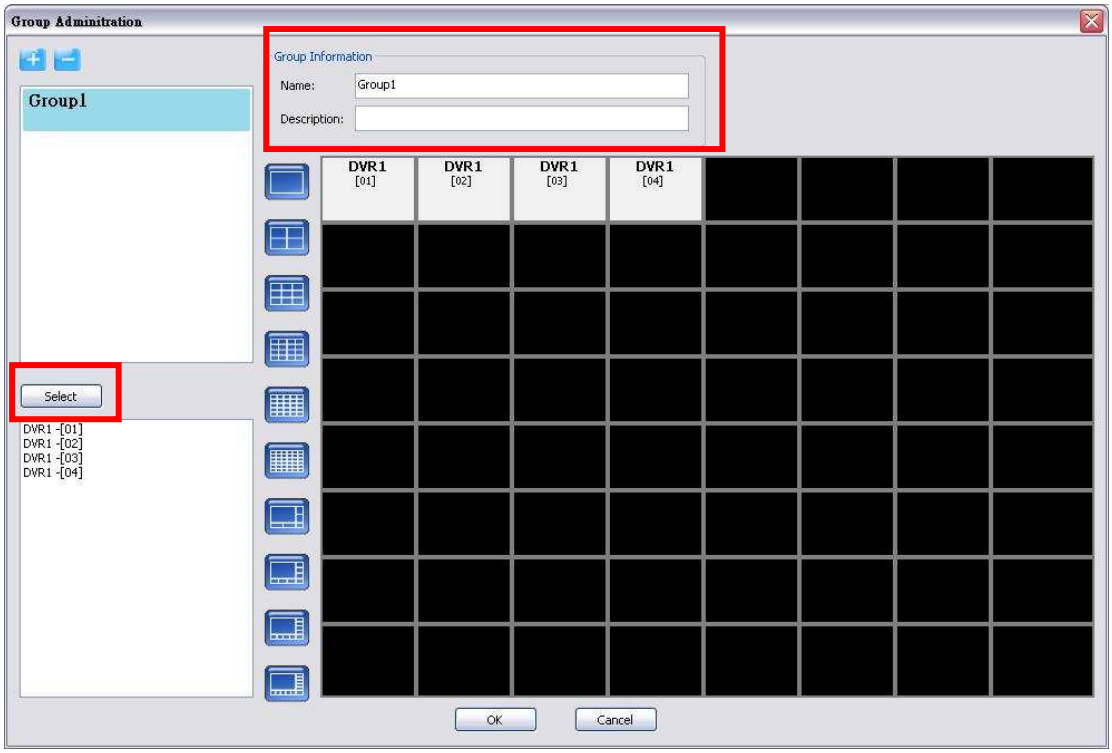
Name: DVR Name (Unrepeatable)
Model: DVR Model
Address: DVR IP Address
Port: DVR Network Port
Channel: DVR Camera Number
ID: DVR Login Account
Password: DVR Login Password
Description: Other Description
Camera Description: Camera Description
From DVR: Load Camera name from DVR

Group Administration

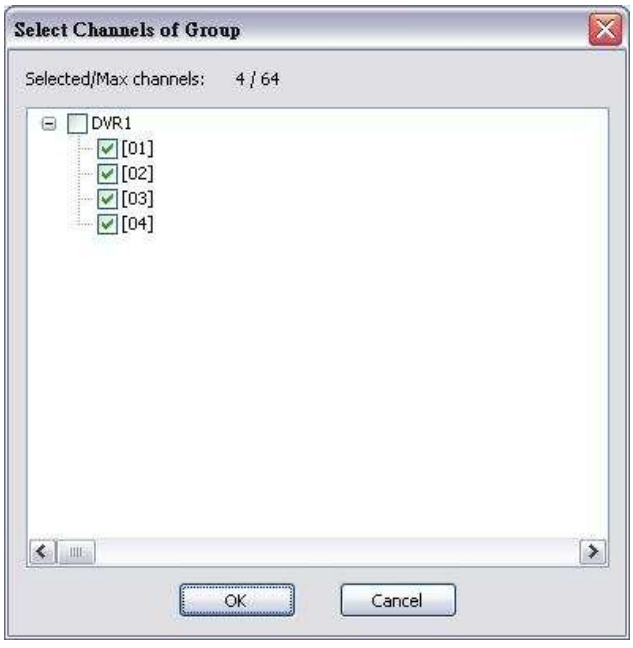
A ‘Group’ means a set of video channels from one or many DVRs, which means, user can organize channels from different DVRs to be set in a group. This function allows you to monitor and manager channels from multiple DVRs easily and flexible.

Steps:

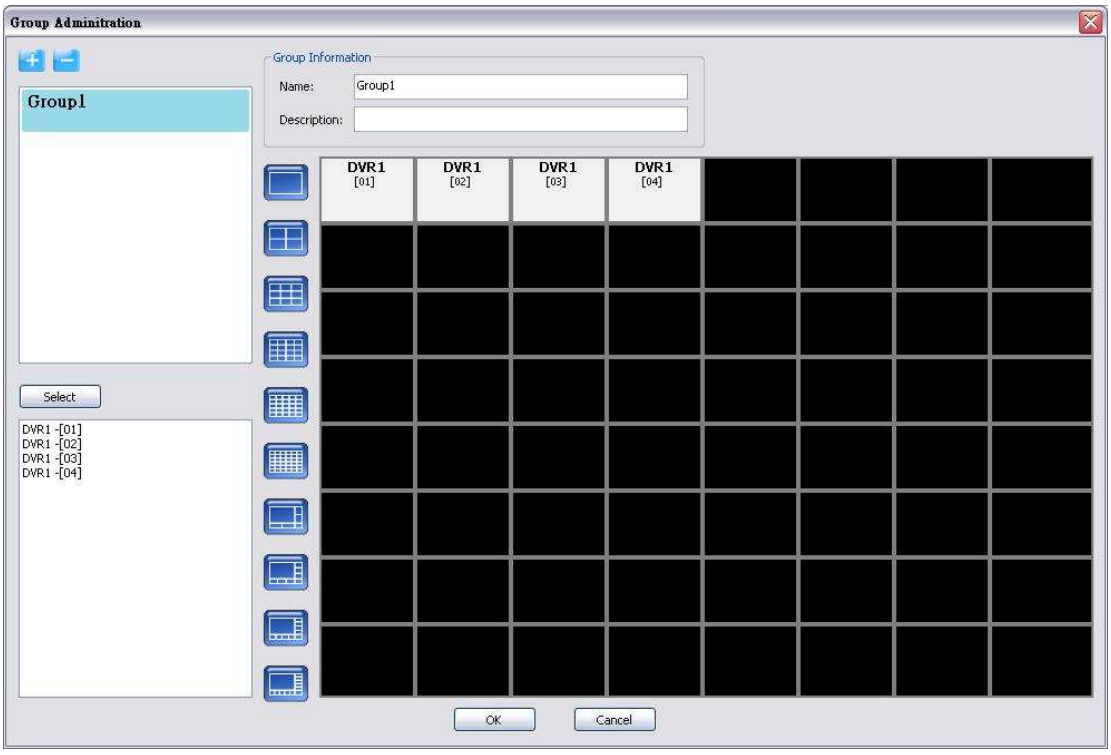
1. Add a new group and set its name and description.
2. Click ‘**Select’** will bring up a new window.



3. Check the specific channels that you would like them to be included in the group. To include all channels of a DVR, just check the DVR.(1 Group up to select 64 camera)



4. Click “**OK**” to return to the previous window.
5. Select a display mode.
6. Drag a channel from the lower left panel into the main display to a preferred location, or change the channel location in the main display by mouse dragging.
7. Press ‘**Select’** again to add other channels, but the un-saved channel locations will be lost.
8. Click “**OK”** to save the setup.

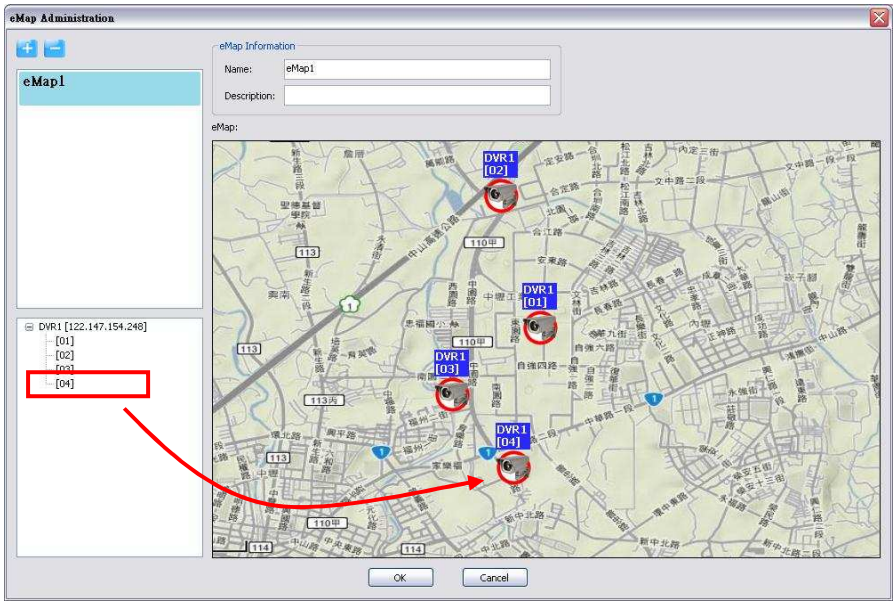


eMap Administration

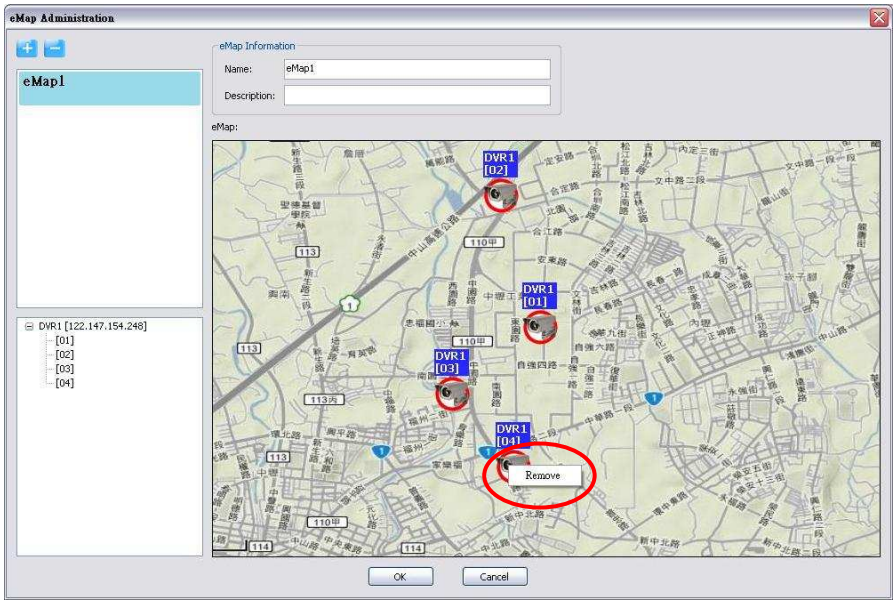
If geographical locations are relevant, or if it is desired to use a picture as the background, eMap can be used for those purpose. With eMap, the background picture can be picked by the user and channels from multiple DVRs can be placed and dragged around on the picture.

Steps to follow:

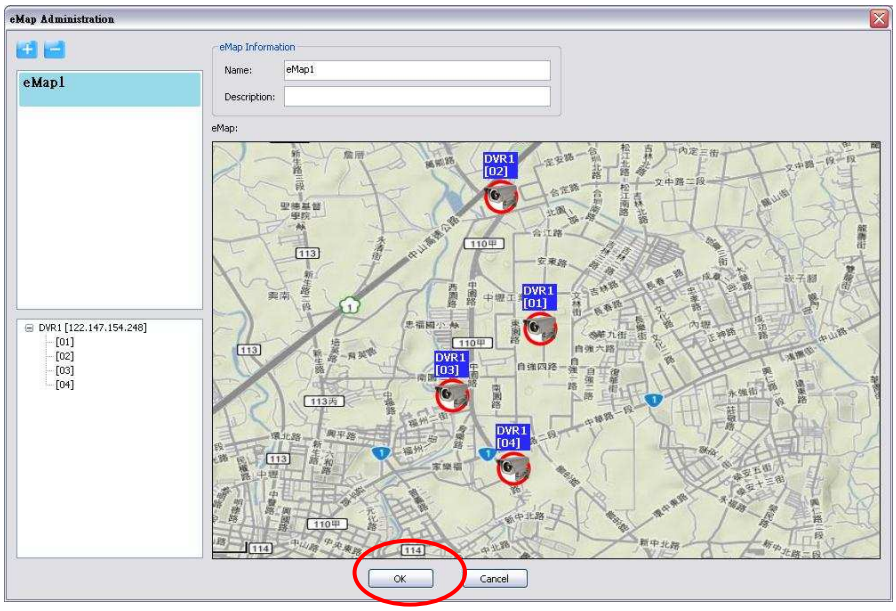
1. Click and a path for the picture will be prompted.
2. Select a picture, click OK and the picture will show in the right panel.
3. Drag channels in the left lower corner onto the picture to any position.



4. To delete a channel already on the picture, right click the channel and click ‘Remove’.

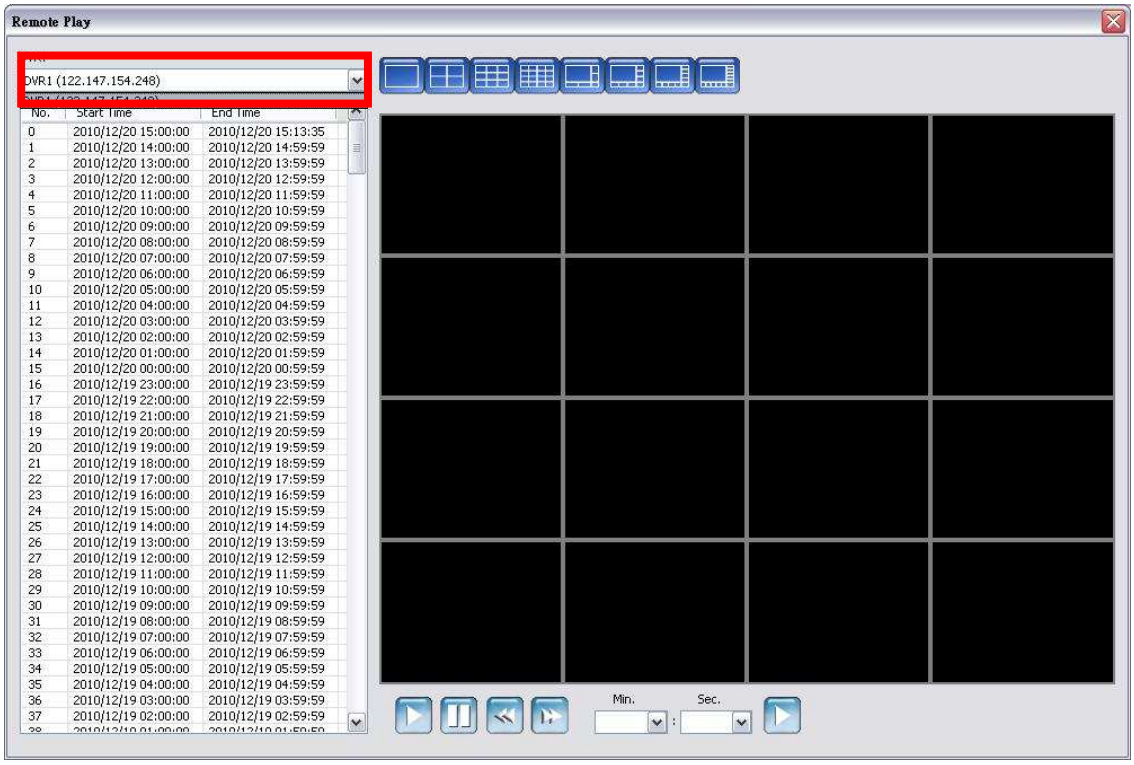


5. Click OK to save.



Remote Play

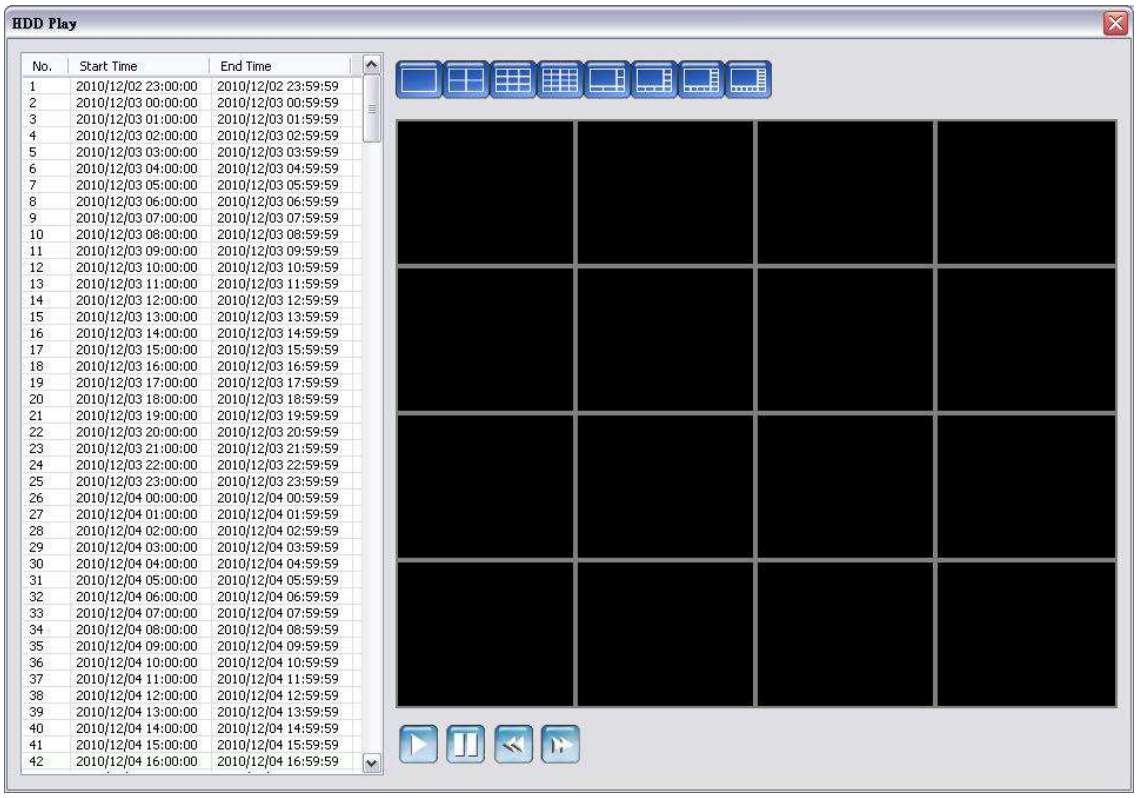
Video images recorded on a DVR can be displayed on a remote CMS. With Remote Play function, select a DVR and a display mode on top of the screen. After the recorded segments are listed below, double click on one to show its image on the right.



Icon	Description
	Start playing.
	Pause.
	Fast rewind.
	Fast forward.
	Select the clip you want to watch the number of minutes and seconds, Press the right button is set to start playing

HDD Playback

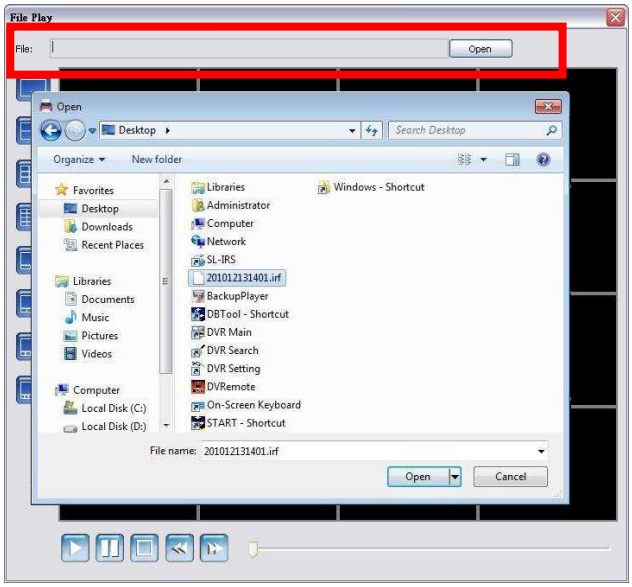
You can directly play the recording data in the HDD that is removed from DVR by CMS. See the picture below, the left part of screen is recording data in list that's separated by hour and the right part is main display. You can change the display modes and play files fast forward or rewind.

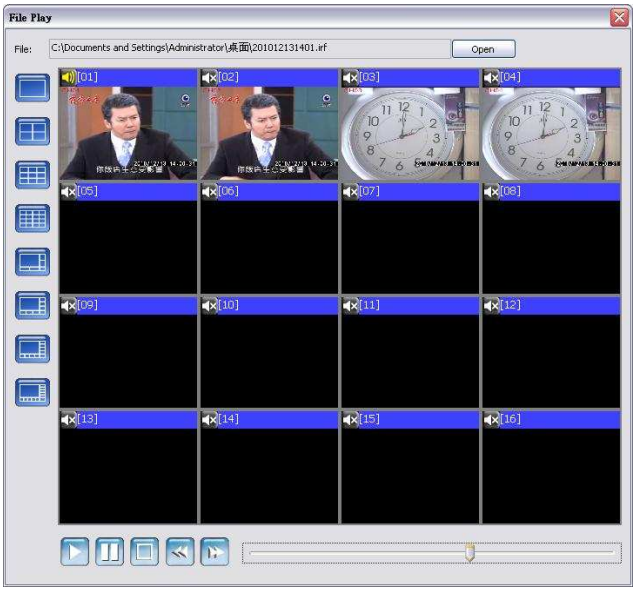


Icon	Description
	Start playing.
	Pause.
	Fast rewind.
	Fast forward.

File Playback

You can play the recorded **.irf** files by “File Play” in CMS. It allows you to change the display mode, forward or rewind the file and drag the time bar.





Icon	Description
	Start playing.
	Pause.
	Stop playback.
	Fast rewind.
	Fast forward.

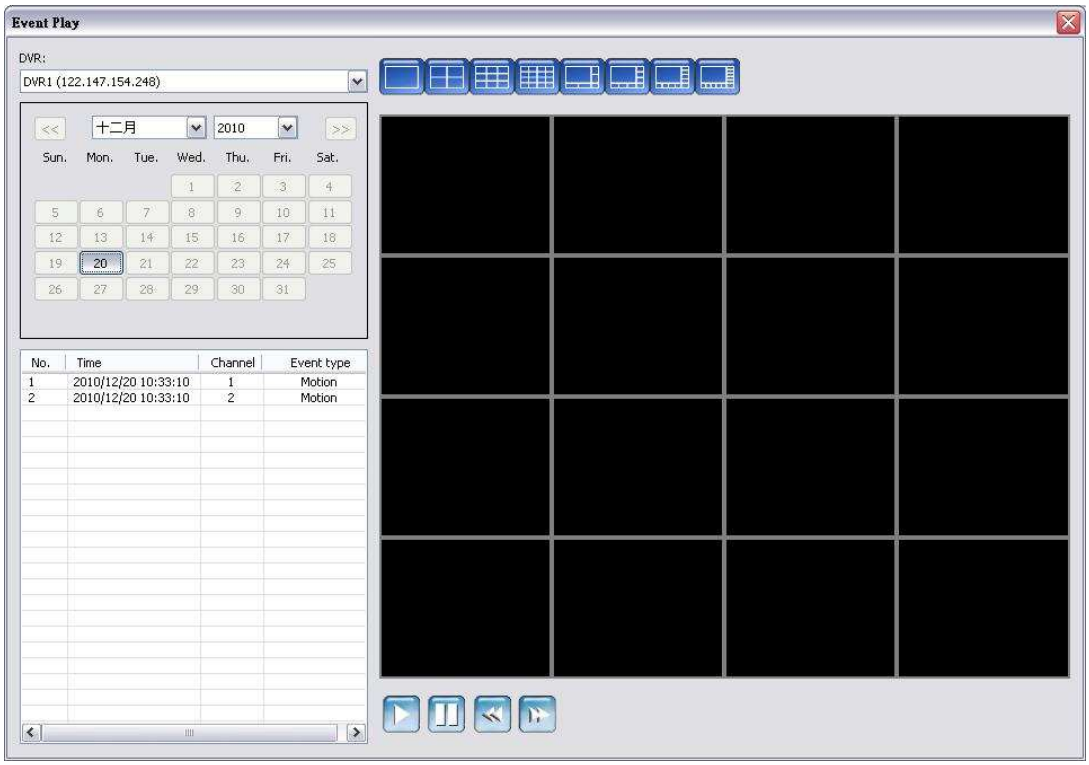
Event Playback

Event recordings on the DVR can be played back in CMS.

Steps to follow:

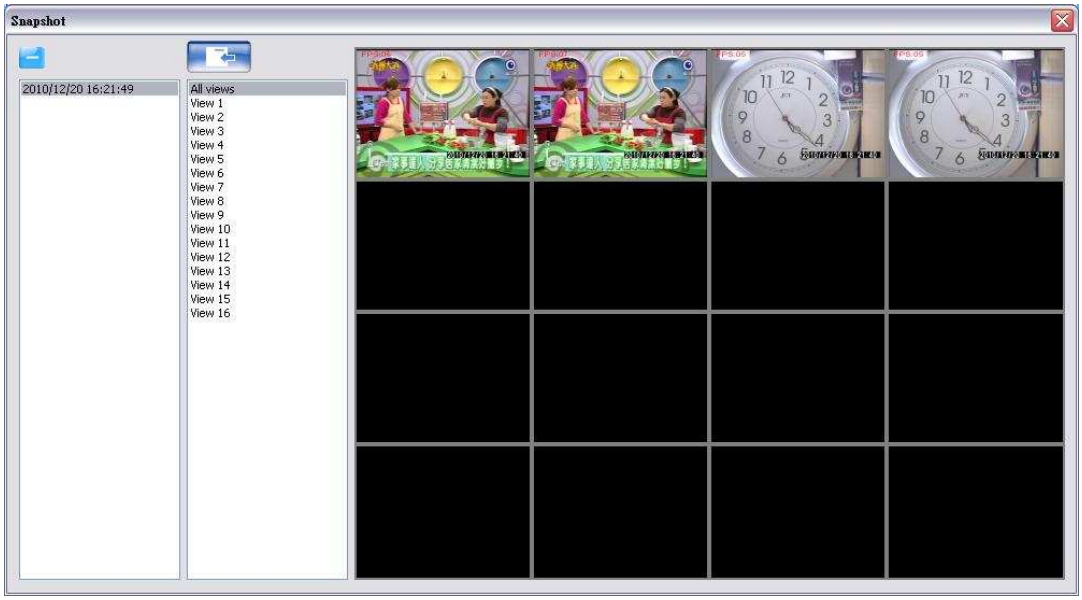
1. Select a DVR and a display mode.
2. Select a date.
3. Double click an event and play back the images on the right.

Use buttons at the bottom to control the playback.



Snapshot Data

It can display all the snapshots you have taken in line in “Snapshot Data”. You can review, delete or save as other files here.



*Capture images of the date and time will follow the PC-time display

Recording Data

It can play all the recording files you've recorded in line in "Recording Data". You can play or delete them here.

Steps to follow:

1. Choose the recording time at upper left corner, it will be played on the main display.
2. You can choose the display mode.
3. Time bar will be shown at right lower corner. Please drag the time bar to specify the recording time you would like to play.

Icon	Description
	Start playing.
	Pause.
	Stop playback.
	Fast rewind.
	Fast forward.